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Appendix C

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PROVISIONAL PATENT APPLICATION
UNDER §111(b)

Assistant Commissioner for Patents
Box Provisional Patent Application
Washington, D.C. 20231

Sir:

Enclosed for filing is a complete provisional patent application of Whitney Stewart, 3625 Fillmore Street, #7, San Francisco, California 94123, entitled "METHOD AND APPARATUS FOR AN ELECTRONIC CHECK PAYMENT SYSTEM" including the following documents:


Specification including any claims - 78 pages
Abstract
Drawings - 2 sheets
Check No. 101460 for \$150.00 for filing fee

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**METHOD AND APPARATUS FOR AN ELECTRONIC CHECK
PAYMENT SYSTEM**

BACKGROUND OF THE INVENTION

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This invention relates to a method and apparatus for an electronic check payment system and, particularly, to an electronic check payment system for converting a raw magnetic ink character recognition (MICR) code line into an automated clearinghouse (ACH) format.

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When the point of purchase of goods or services is at a business's brick and mortar place of business (e.g., a merchant's store), the purchaser of the goods or services provides a paper check to the business. The business then submits the check to a financial institution for settlement. This process is slow, and results in a delay in the amount of time that it takes for funds to be released to the merchant.

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Internet merchants and other commerce accepting businesses (hereinafter, collectively referred to as "businesses") are limited in their payment acceptance options and rely, in most instances, on credit card transactions. However, credit card issuers have many rules and penalties for businesses and consumers. All Internet credit card transactions are classified as "consumer not present" transactions. This subjects businesses to increased discount rates from the credit card issuers and payment networks. Discount rates can reach in excess of 10% of the transaction value. Moreover, businesses are also subject to normal charge back rules. Even after an item is shipped, the consumer is able to use all charge back rights to return items, deny receipt of items, or claim transaction fraud.

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One solution for check payment over the Internet is a "drop-to-draft" practice. A "drop-to-draft" system provides the ability of a payor to enter the check data onto an Internet Web site screen. The check data is relayed to the business or a third party representing the business. Once the data is obtained, the business or third party triggers a draft to be created to facilitate payment of the purchase. Thus, a physical (i.e., paper) check is created based on the data entered by the payor.

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SUMMARY OF THE INVENTION

The "drop-to-draft" practice for Internet transactions does not increase efficiencies in settlement time, or risk management. Thus, a better system for the Internet transaction
5 is required to eliminate physical checks, reduce settlement time, promote increased risk management and avoid use of credit cards.

Accordingly, the invention provides a method and apparatus for allowing submission of an electronic check including check data. The check data includes a raw MICR code line (also "MICR data"), which is obtained from a financial document, such as
10 a check. The electronic check is entered into a point of sale terminal, which for this embodiment, is a system Web site at the purchaser's microcomputer. The entered electronic check is transmitted from the purchaser's microcomputer through the Internet to an electronic device. The electronic device for this embodiment is the system's server. Once obtained by the system's server, the MICR data is converted into an automated
15 clearinghouse (ACH) format (which is unique to each financial institution), and is processed through verification and risk management filters. Once verified, the converted ACH data is then capable of being provided to an ACH for payment. Thus, by submitting an electronic check, the system removes handling of the physical check, reduces settlement time and promotes increased risk management.

20 Additionally, the electronic check can be provided at a business's brick and mortar store. The electronic check is entered into the point of sale terminal and is transmitted to an electronic device via a distributed network. Once obtained by the electronic device, the MICR data is converted into the ACH format and is processed through verification filters and risk management filters. Once verified, the converted ACH data is then capable of
25 being provided to an ACH for payment. Again, by submitting an electronic check, the system removes handling of the physical check, reduces settlement time, promotes increased risk management, and eliminates the need for credit cards and the attendant fees risks, and penalties of credit cards.

The electronic check system of the invention provides an electronic check for
30 acceptance as a variable, low risk, low cost alternative to credit. The electronic check allows payment by a large group of consumers at a reduced cost to businesses. By providing the electronic check as a payment vehicle, businesses are able to reduce their cost and increase the audience to which they can offer a product or service. Additionally, the evolution of micro-payment (i.e., payment via a microcomputer) opens great

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opportunities for the Internet check transaction as the cost of credit card transactions currently renders such commerce unprofitable.

The electronic check system of the invention allows for a single transaction to initiate verification and conversion routines. In addition, the transaction initiates the transaction data to be submitted into the automated clearinghouse ("ACH") flow. Moreover, the invention includes a new technical coding specification that allows for authorization-only transactions. That is, the invention provides authorization-only services to organizations that want to settle and process their own ACH electronic transactions. For example, large corporations may already have established, low cost ACH capabilities. The invention provides the verification and conversion aspects to these corporations while allowing the corporations to continue using their own ACH capabilities. This feature can also be applied to electronic bill payment providers that perform advance verification and authentication of new customers.

The invention also allows capturing and storing electronic check data as the system processes electronic check transactions. The stored electronic check data forms a database that can be used to create new verification filters or modify existing verification filters.

The invention also provides an electronic check payment system having a point of sale terminal. The point of sale terminal has an input device for receiving MICR characters. The electronic check payment system further includes an electronic device connected to the point of sale terminal. The electronic device has software for converting the MICR characters into an automated clearinghouse (ACH) format specified by each financial institution participating in the ACH.

The invention further provides a method of providing an electronic check payment to a commerce entity. The method includes the acts of: providing a point of sale terminal capable of receiving MICR characters and an amount of payment, providing an electronic device, entering the MICR characters into the point of sale terminal, entering the amount of payment into the point of sale terminal, converting the MICR characters into an automated clearinghouse (ACH) format, and presenting payment to the business.

It is an advantage of the invention to provide a low cost and secure alternative to credit card payments. This allows for access to a broad consumer population that has the ability to pay for goods and services only by check, that may not to choose pay by credit card, or that may not possess a credit card.

It is another advantage of the invention to provide an electronic check system for eliminating physical checks, thereby reducing settlement time and promoting increased risk management.

It is another advantage of the invention to provide an electronic check system that
5 reduces the amount of error incurred in converting raw MICR data into an ACH format.

It is another advantage of the invention to enable electronic check-based debit transactions for payment in exchange for goods or services over the Internet.

It is another advantage of the invention to enable electronic check-based debit transactions for payment at a point of purchase of goods or services.

10 Other features and advantages of the invention are set forth in the following detailed description, drawings and claims.

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DESCRIPTION OF THE DRAWINGS

Fig. 1 is a representative flow chart of an electronic check payment system.

Fig. 2 is a representative flow chart of a verification filter.

- 5 Before one embodiment of the invention is explained in full detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangements of components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced or of being carried out in various ways. Also, it is to be understood that the phraseology and
- 10 terminology used herein is for the purpose of description and should not be regarded as limiting.

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DESCRIPTION OF THE PREFERRED EMBODIMENT

In operation, the electronic check system and method provides for an electronic check to be submitted by a purchaser of goods or services via the Internet. To initiate this process, a business Web site presents a check payment option input screen to the purchaser at the purchaser's computer. The check payment input screen captures electronic check data including full MICR data, name, address, check number, and amount of purchase. The MICR data includes MICR characters and is obtained from a financial document (e.g., a check). The check payment input screen may obtain other information, including financial and personal data, or a purchaser email address. The check payment input screen also provides for an option where a user provides a membership trigger. The membership trigger may be a password, personal identification number, or other unique identifier.

The check payment input screen can be a Java Entry Applet able to push the input screen from the business Web site to the consumer's computer. Alternatively, the check payment input screen can be a Web site linkage from the business Web site to an electronic check system Web site or a third party Web site. The electronic check system Web site or third party Web site provides for data entry capture and transaction initiation on behalf of the business. An electronic check system server provides the electronic check system Web site and a third party server (e.g., a payment gateway service server) provides the third party Web site.

Once the check payment input screen is provided to the payor's computer, the user enters the check payment information, including the electronic check data, to the check payment input screen. The user may enter all the elements for the check payment information or provide the membership trigger which will "recall" portions of the check payment information. For example, the user may enter the membership trigger which will "recall" portions of check payment information from a membership trigger database. That is, when the purchaser enters the membership trigger, it is transmitted from the purchaser's computer via the Internet to the business, third party or electronic check system server. The receiving server compares the transmitted trigger to the membership triggers in the membership trigger database and provides the associated payment information if a match occurs.

After the purchaser provides the electronic check payment, the information is preferably transmitted, via the Internet, to the electronic check system server for analysis. In addition, the third party or business server connects to the electronic check system for

verification or declination. Alternatively, the check payment information is transmitted to the business server or the third party server. If the check payment information is transmitted to the business or third party server, the server connects to the electronic check system server and transmits portions of the check payment information (e.g., the MICR data) to the electronic check system server for analysis. In this embodiment, the third party or business server continues the link until the electronic check system server provides verification or declination.

Upon the electronic check system server obtaining the necessary check payment information, it analyzes the information to determine whether to accept or decline the electronic check payment. To accomplish this, the electronic check system server analyzes the information by applying the information to verification filters. The verification filters analyzes the information to determine whether the electronic check is valid (i.e., not fraudulent or negligently entered). The number or type of filters can vary.

A first example verification filter is a typographical verification filter that verifies the raw MICR line (including all symbols) was correctly "typed" or entered into the check payment input screen. A second example verification filter assesses the likelihood that the MICR data entered is a fraudulent MICR line. For example, a purchaser may have fraudulently entered the financial institution routing number in the MICR data to not meet American Banking Association (ABA) specifications. The second example verification filter would discover the fraudulently entered routing number and decline payment. A third example verification filter compares portions of the check payment information (e.g. portions of the MICR data) to a database containing past electronic checks that are currently not paid due to insufficient funds. For example, the routing number and an account number of the submitted MICR data is compared to a database of "bad check-writers".

In general, risk management filters analyze the electronic check transaction and predict whether the acceptance of payment is a good or bad risk. The prediction is based on models previously provided to the electronic system server. The information entered into the models can be the check payment information, the business receiving payment, the third party receiving payment, the goods or services being purchased, or other predictors. An example of a risk management filter is a database of bad check-writers containing a plurality of routing and account numbers for the bad check writers. If the submitted routing and account numbers match a routing and accounting numbers on the bad-check writer database, then the system would decline payment.

The electronic check payment server is modular to allow for new filters to be added and for selection of filters to be turned "on and off". The verification filters can be unique for a specific business or be used for a plurality of businesses. Additional verification filters are disclosed in greater detail in later portions of this document.

5 The accepting or declining act also includes the act of converting the raw MICR line into an ACH format. Converting the MICR line to an ACH format allows the transaction to be submitted to an ACH network (either by the electronic check system server, or the business or third party server). This step is disclosed in greater detail in later portions of this document.

10 When the electronic check system obtains the check payment information, it stores the electronic check transaction including the check payment information in a database. The capturing and storing of the electronic check transaction includes storing data representing whether the transaction was accepted or denied and the reason for the acceptance or denial. This allows an operator or a computer of the electronic payment
15 system to analyze the data. Analyzing the data allows for modification of current filters and/or creation of new filters. The new filters can be verification filters or risk assessment filters and can be specific for a business or channel of businesses. The storing step also allows for businesses to review the transaction at a later date.

20 After determining whether the electronic payment is accepted or declined, the electronic check system server provides the decision notice to the business server. The business server then forwards the notice to the purchaser's computer via the Internet. Alternatively, the electronic check server returns payment acceptance or declination notice to the third party server who, in turn, transmits the message to the purchaser's computer.

25 Upon declination, the appropriate Fair Credit Reporting Act (FCRA) disclosure language is provided to the purchaser. The electronic check system server, the business server, or the third party server can provide the disclosure language. Additionally, the business, third party or electronic check system can facilitate FCRA consumer inquiries. This act can be accomplished by transmitting an e-mail message, having the purchaser calling a service representative or a similar act.

30 Upon acceptance, the business or third party server indicates appropriate shipping notices to the client and may obtain further information.

Once the approval or declination is provided to the user, the portion of the electronic transaction concerning data capture and verification has ceased. If the electronic transaction results in acceptance, either the electronic check system server or the

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business server present the electronic check transaction to the ACH network. The electronic check transaction to be presented to the ACH network includes the MICR data in the appropriate ACH format.

5 If the electronic check system server is completing the transaction, the server presents the transaction for payment through the ACH network. The electronic check system server identifies a predefined funds holding window to mitigate return risk resulting either from fraud, inefficient funds or processing errors. The holding window is a time period established based on different criteria including the business involved in the transaction, the amount of the transaction, the risk factor of the transaction or other
10 criteria. The electronic check system server transfers the amount of the funds electronically to a custodial account. The custodial account holds the funds until the hold window expires.

While the funds are being held in the custodial account, the transaction is being settled by the ACH into either a business or payment gateway custodial account after the
15 hold window expires.

Periodically, the electronic check system server reports transactional level reporting via an electronic bulletin board to be retrieved businesses daily. The business or third party may pull the transaction reporting off of the bulletin board. This allows return information to be passed onto businesses to cancel shipments and reconcile settlement
20 reporting.

If the electronic check transaction results in a non-sufficient fund (NSF) return item, preferably, the third party or business has the ability to represent the NSF item to the ACH network. The number of times a third party or business has the ability to represent the NSF return items may vary. Upon final non-payment of transactions, the business
25 account or payment gateway custodial account is debited for the amount of the return item. If the business has shipped goods prior to return notification, the business then becomes liable for the amount of the item.

The electronic check system is preferably designed for a point of sale (POS) transactions and POS terminals. This design requires the use of specifications that require
30 the emulation of a POS terminal in all environments. Of course, different portions of the system can be designed for specific environments or the system can be designed for emulation of a different environment other than a POS environment.

The ACH option of the system allows for coupling processing of the verification and the payment origination. The reporting functionality that accompanies the ACH

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settlement process provides detail for the business to apply to accounting and shipping applications. The reporting functionality includes a daily poll environment from an electronic bulletin board sorted at the business level.

5 The system provides detailed settlement reporting for business archival and consumer profile devices. In addition the system and method provides detailed reporting for shipment reconciliation. The detailed reporting can be delivered daily or multiple times daily electronically.

10 The system allows for multiple recurring ACH transactions for a specific business, and allows for multiple debits to consumer accounts. Additionally the system allows for segmented billing of split shipments due to product availability.

The system and method allows for use of multiple risk screening and return predictability models to mitigate opportunity for return. By minimizing the opportunity of return, the system is able to secure transaction and add integrity to the payment to enable the business to effectively ship goods with minimal risk of funds return.

15 Although the above detailed description was for an electronic Internet check, the system can provide an electronic check for other channels of commerce. The following description supplements and further defines the electronic check system.

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ELECTRONIC CHECK AT POINT-OF-PURCHASE
PRODUCT DESCRIPTION AND SERVICE OFFERINGS

eFunds ELECTRONIC CHECK

eFunds Electronic Check is a service that provides for the electronic conversion of checks presented for payment at the point of purchase and their subsequent processing through the ACH network. We offer the "Consumer as Keeper" Model in compliance with the NACHA (National Automated Clearing House) Rules. The eFunds check conversion service is designed to carry the MICR line data from a check, including the payer financial institution routing number, account number and check serial number, and the transaction amount and payee information from point-of-sale equipment to DPPS for processing through the ACH system. Once a consumer presents a check to a Merchant, the point of sale system will produce a receipt for the consumer to sign or will print the required authorization on the consumer's check in order to authorize the initiation of an ACH Entry. As an option, the authorization may also include authorization to collect, via separate ACH debit transaction, a service fee in the event the electronic transaction is returned. The amount of such service fee must be disclosed in this authorization. The check itself need not be signed by the consumer and is handed back to the consumer with the authorization receipt for their safekeeping.

The eFunds Electronic Check Service combines our risk and information management capabilities with SCAN OnLine and our ACH payment processing delivery for a comprehensive electronic check conversion offering. These capabilities, coupled with sophisticated return check management and collection services, provides full check management solutions for Merchants.

HOW eFunds ELECTRONIC CHECK WORKS

The process begins with the Merchant displaying signage at the Point-of-Sale disclosing that their method of check processing is electronic and states their return check fee policy. The consumer's paper check serves as the source document to obtain the routing and account number information, as well as the serial number of the check. The consumer need not fill in or sign the check.

When a consumer presents a check to a Merchant, the eFunds Electronic Check system prompts the clerk through a series of steps to enter pertinent information and to process the check through the MICR reader. This information is then routed to the DPPS Host system for the validation, authorization and capturing of the transaction. Upon approval, the system will generate a receipt for the consumer to sign in order to authorize the initiation of the ACH Entry. The authorization may also disclose to the consumer the electronic re-initiation of the Entry in the event the transaction is returned unpaid. Additionally, the authorization may disclose that a return check service fee with the dollar amount may be collected electronically, via a separate ACH Debit Entry.

The merchant provides the consumer with a copy of the signed authorization receipt and returns the check to the consumer for safekeeping. The words "Void, Electronically Processed" or similar language should be stamped on the check or "Franked" by the cash register. The merchant will retain a copy of the authorization receipt for two (2) years and make the authorization receipt available within three (3) days upon request.

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For the approved, captured transactions, DPPS will, at designated "cut off" time², originate a one-time ACH Debit Entry to the consumer's account for purchases made in person at the point-of-purchase, based on a written authorization and the use of a paper check. DPPS will also originate the ACH Credit Entry to the Merchants Account.

DPPS will also provide Returns Items Management and Collections. Some number of items will be returned by the paying bank for insufficient funds or other reasons. These returned items will be re-initiated in accordance with options set in merchant profile and subject to ACH Operating Rules. We offer a SCAN Scoring sequence on returned items to determine the likelihood of it clearing, and based on this Score will either contribute to SCAN immediately or re-initiate. If the re-initiation of a returned electronic check fails all attempts, DPPS will electronically contribute the item to SCAN on behalf of the SCAN Member. We will perform a "Skip Trace" routine on the unpaid item for name, address and/or phone number and provide this data, along with the return information to the retailer, or Certified Collection Agency. Should DPPS be unsuccessful in its "Skip Trace" attempt, DPPS will absorb the item, when the transaction was processed to DPPS for authorization and validation. If the re-initiation of a returned item clears, DPPS will process a Collections Service fee with in seven (7) days based on Merchant Profile.

The system-generated receipt will contain the following information: *du*

Merchant Name

Merchant phone number/or third- party service provider phone number

Merchant Address

Transaction Date

Terminal Number or Merchant ID

Transit Routing number

Account Number Masked (All "X" except the last four digits)

Transaction Amount

Check Number

Receiver's ID number

A signature line

NACHA approved language indicating the check is being processed electronically and that a service fee may be assessed if the check is returned unpaid.

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eFunds ELECTRONIC CHECK SERVICE FEATURES/FUNCTIONS

POS terminal software and eFunds Electronic Checking Specifications
Check authorization via SCAN OnLine with multiple risk levels.
Central Host Capture System with MICR validation and ACH Origination
ACH Processing Services and options
MICR to ACH conversion and reject, research and re-entry processing
Paper draft creation for Non-Compliant Items
Daily financial settlement of retailer and consumer transactions
ACH Return Items Management with items electronically re-initiated, electronically contributed to SCAN (in compliance with the SCAN Rules of Participation), "skip tracing" for name, address, and/or phone number for unpaid items with integrated collection programs or collections systems interface Collection Service Fee Origination.
Retailer Profiles defining individual operating specifications at the Merchant level
Consumer Referral services to handle consumer inquiries related to check authorization
Fair Credit Reporting Act Compliance
NACHA's Point-of-Purchase (POP) Rules compliance
Information Management & MIS reports
Hot Site Back-Up
Operational Support via 800 phone number
Program support for general product, operational and reconciliation inquiries

IVR (Interactive Voice Response) for equipment and systems downtime
Project Planning and full implementation team support
Merchant training materials and Procedure Guides

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COMPONENTS OF eFunds ELECTRONIC CHECK SERVICES

MICR Capture. The capture of the full "raw" MICR line data from the bottom of the check and additional data required for processing (terminal ID, customer ID source, amount, date, etc). This capture will occur via a MICR reader and terminal equipment deployed at the point-of-sale and is transmitted to the DPPS Host for validation and authorization.

Validation and Authorization. The electronic check transaction request will be simultaneously matched against multiple databases for authorization and validation to assure an accurate account number is being captured for ACH Processing and to mitigate risk exposure.

The multiple databases offered for Validation are:

- 1) A history database of correct ACH conversion routines
- 2) Primary Payment System's daily, open Account Number File for accurate and open positive accounts
- 3) ID Source Validation database to determine whether sufficient data elements are available to identify a check presenter in the event the Entry is returned unpaid and collection efforts are necessary. The first time a MICR line is accepted into the system, an additional form of ID will be necessary. The system will capture and retain the ID source associated with the check so that additional ID is not requested when the check is processed in the system the next time. Depending on the merchant's trading area, a drivers license number may be sufficient as the ID source; in other areas a phone number or social security number may be requested.

The multiple databases offered for Authorization are:

- 1) SCAN OnLine
- 2) SCAN Database
- 3) Primary Payment System's daily, closed Account Number File.

Consumer Referral Services in compliance the Fair Credit Reporting Act (FCRA) will be provided. FCRA requires that a merchant notify a consumer of a declined transaction. DPPS will provide a Consumer Services Center for consumer referrals from 6:00 AM to 10:00 PM Pacific Time, seven days per week. DPPS will inform declined consumers of the reason for the decline so that payment can be made to the SCAN Member holding the outstanding NSF items.

ACH Origination and Financial Settlement to Merchant and Consumer Accounts. Approved Entries are formatted into ACH Transaction formats and a file is delivered to the ODFI and/or processing agent. The electronic check Entries will be routed through the ACH Network to the RDFI's; an ACH credit will be originated to the designated Merchant depository account and a debit settlement will be made to the consumer account

Funds Settlement. Settlement will occur against the merchant's account. This will include settlement of credits and debits, collection service fee settlement, adjustments and invoicing.

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In the Remarketing environment, the actual settlement will occur against the end-user retailer accounts. Exact funds flow and custodial accounts will be established at time of Agreement execution.

Returns Items Management and Collections. Despite efforts to pre-authorize checks presented for payment, some number of items will be returned by the paying bank for insufficient funds or other reasons. These returned items will be re-initiated in accordance with options set in merchant profile and subject to ACH Operating Rules. We offer a SCAN Scoring sequence on returned items to determine the likelihood of it clearing, and based on this Score will either contribute to SCAN immediately or re-initiate. If the re-initiation of a returned electronic check fails all attempts, DPPS will electronically contribute the item to SCAN on behalf of the SCAN Member. We will perform a "Skip Trace" routine on the unpaid item for name, address and/or phone number and provide this data, along with the return information to the retailer, or Certified Collection Agency. Should DPPS be unsuccessful in its "Skip Trace" attempt, DPPS will absorb the item, when the transaction was processed to DPPS for authorization and validation. If the re-initiation of a returned item clears, DPPS will process a Collections Service fee within seven (7) days based on Merchant Profile.

Skip Tracing. "Skip tracing" is the process of identifying the name, address and/or phone number for a transaction that is returned during ACH Processing. DPPS' Skip Tracing service utilizes a prioritized series of data sources, including but not limited to Proprietary ID Files, internal data files, Debit Bureau and external Credit Bureaus and information sources.

Reporting. Reports consist of daily/monthly/quarterly standard reports and layouts. Historical reports are available for up to 45 days.

Refer to attached Report Descriptions.

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The system will deliver consolidated reports to the Remarketer. It is responsibility of the Remarketer to segregate and distribute them to its Merchant.

Report Delivery. Report Delivery will be available via a Secured Web Server. This will be our standard delivery method with other options. The five (5) primary methods are: Retrieval via Web, Electronic Delivery via electronic files, FAX, Printing from dial-up terminals and paper reports. We support various formats for the reports: Microsoft compatible text, comma delimited ASC II file (Excel) and PDF (standard format for Internet)

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DATA COMPONENTS:

This list of data requirements and transaction types is intended to provide a brief explanation of what is needed to process checks electronically.

Raw MICR: The complete MICR line from the check is received, including symbols and spaces, captured electronically.

Parsed MICR: Raw MICR is parsed into transit-routing number, account number and *check series* numbers for conversion to ACH compatible number for processing.

Dollar amount: The total transaction dollar amount of the check to be processed.

Date: The date of the transaction of the check to be processed.

Time: The time of the transaction of the check to be processed (optional for batch processing).

Secondary ID: The check writer's Driver's License and/or phone number.

Retailer proprietary ID: Retailer issued customer ID number, i.e. membership number (optional).

FINANCIAL TRANSACTION TYPES:

Debit (Consumer): Transfers the dollar amount of the transaction from the consumer's DDA account to credit the retailer's DDA account.

Debit (Merchant): In the event of a returned consumer debit transaction, the retailer's DDA account (which was previously credited) will be debited for the amount of the returned transaction.

Debit and Credit adjustments and invoice settlement.

TRANSACTION TYPES SUPPORTED:

Sales: For goods and services at point-of-purchase.

VOIDS: Deletes a pending consumer debit transaction (applicable only to real time processing environments) must be performed prior to batch close. Must be for full transaction amount only.

Reversals: Reverses a consumers debit transaction up to 5 days after the original transaction. Must be for the full transaction amount only.

Batch Close: Serves as an electronic notification to DPPS that all transactions submitted by that terminal are to be processed through the ACH network at the next opportunity (applicable only to real-time processing environments).

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RETURNED ITEMS MANAGEMENT COMPONENTS

Re-Initiation: Eligible returned electronic check transaction are submitted via ACH according to Merchant Profile and in compliance with NACHA operating Rules (optional).

SCAN Scoring Sequence: On Returned Items to assess likelihood of clearing based on the score the item will either be contributed to SCAN immediately or re-initiated.

SCAN Contribution: On behalf of member in accordance with SCANsm Rule of participation (optional)

Collection Service Fee: A service fee is charged to the consumer for the processing and handling of a returned electronic check transaction. This fee is initiated through the ACH network upon a successful paid electronic re-initiation. This will occur automatically within 7 days (optional)

"Skip Trace": Name plus address and/or phone number of the check writer provided to the collection entity for returned electronic check transaction that are no longer eligible for re-initiation (optional). For the Processing Only Batch product, DPPS will utilize its "skip trace" sources based on the transaction data provided (MICR, DL, phone number, etc.); however, DPPS does not warrant the success of a "skip trace".

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COMPONENTS OF SCAN ONLINE AUTHORIZATION

ID Validation

Whenever SCAN receives a request, it validates the primary key (full MICR including check number). It also checks the primary ID against the Member's VIP list. The VIP list contains certain ID numbers for SCAN always to accept and others for SCAN always to decline for all the Member's stores. The VIP list does not affect processing for other Members. Finally, it checks the primary ID to see if it is a PPA (Permanently Protected Account) or PPD (Permanently Protected DL number). If it is this item will not be converted as they are typically Credit Line Checks.

Negative Processing

SCAN checks the primary ID against the SCAN negative file, which is a list of those ID's with returned checks outstanding. SCAN always declines checks that match an ID in the negative file.

Negative processing also includes checking to see if the primary ID is negative by association. Negative by association means that the ID itself does not have a returned check outstanding, but an ID linked to it does. For example, the transaction may be for MICR number XXX, which is linked in the SCAN database to DL number YYY. There are no bad checks outstanding for MICR number XXX, but DL number YYY does have bad checks outstanding. So MICR number XXX is negative by association.

Basis Velocity Processing

For each transaction, SCAN calculates the quantity, total dollar amount, and total cash-back amount of all checks written to the Member's stores on that ID number in a given period. Then it returns a response based on the Member's velocity parameters. If the Member subscribes to the transaction risk function, the response is also based on the resulting transaction score. Different point-of-sale responses can be set up for different scores.

If the Member is a conglomerate, the setup parameters for each storefront also indicates which other storefronts' transaction information is to be included in the velocity calculations. Note that, by a special agreement, two or more Members can instruct SCAN to share their transaction information for velocity calculations.

Dual ID Processing

If the product includes the dual ID function, transactions that fail velocity processing or transaction risk processing on the basis of the primary ID are processed using the secondary ID. Processing varies according to the function that failed the primary ID; details are shown in the Pass/Fail tables in the descriptions of the functions.

Scored Velocity Processing

If Members subscribe to transaction risk processing, they set up range of transaction scores and can define the velocity parameters and responses at the point-of-sale differently for each range. Then SCAN checks the transaction against the velocity parameters defined for the calculated risk value.

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09/15/99

Version 1

Transaction Risk Processing

SCAN calculates the transaction score based upon the known history of the ID (such as paid SCAN items) and the characteristics of the current transaction (such as the check number, amount, time of day, and day of week). For example, if the check number is, the amount is high and the time of day is a high-risk time (such as just before closing), the score would be lowered.

Then it compares the check amount the maximum check amount the Member allows for that risk value. The Member can specify different maximum check amounts and POS responses for different transaction score ranges. Note: If a Member also subscribes to velocity processing, the transaction score is applied to the velocity parameters set up for the risk strategy.

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09/15/99

Version 1

REPORTS DESCRIPTIONS

Member Daily Activity

Generated daily reflecting the settlement date, status and other pertinent information about the check processed for ACH Conversion. This report will typically be used for financial information and and/or for data entry purposes required to supplement other accounting, check databases, information management and/or collection systems.

The Settlement Section reports the financial dollars settled by store, by check and with system reference numbers.

The Processing Section reports those checks in process of the re-initiation cycles by store, by check and with systems reference numbers. This section is optional for those members who need this information to enter into other databases, such as a proprietary check database.

The Returns Section reports all "Fatal Un-Paid" Returns. This section will reflect those checks contributed to SCAN on behalf of a member. This section will also include the results of the "Skip Tracing" and provide name/address and/or phone number information required for collection efforts.

Sort Sequence is by Store number, ABA, Account Number and subtotaled by Store Number subtotaing up to Member.

Member Daily Summary

Generated monthly on the first of the following month, reflecting all transactions and activity types processed that day by store. This report will typically be used for auditing and reconciling purposes.

This report is optional and will typically be requested during the implementation, pilot period.

Sort Sequence is by Store Number subtotaing up to Member.

Member General Ledger

Generated Monthly at first of the month reflecting financial activity by Depositing Account number. This report will typically be used to audit and reconcile settled dollars (debits and credits) to each Depository Account number by date, ACH Trace reference number and dollar amount.

Sort sequence is by date and Depository Account number subtotaing up to member level.

Monthly Detail Report

Generated monthly, on the first of the following month, reflecting all transactions and activity types per store by day for a monthly summary. This report will typically be used for auditing and reconciling individual store locations.

MEMBER MONTHLY EXECUTIVE SUMMARY

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09/15/99

Version 1

Generated monthly and/or quarterly with an annual report providing a store level summary of financial and transaction activity to measure program value.

This report is generated on the 15th of the month to assure all settlement and fees calculated are reported on a calendar month basis, the date of the check will determine the month the activity will be reported.

A Return Analysis section is provided to measure the effectiveness of the Return Item Management Service with number, dollar amount and percent of totals.

Sort sequence is by store number up to member level.

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the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion. The number of illiterate people in the world is projected to reach 1.7 billion by the year 2015. The number of illiterate people in the world is projected to reach 1.7 billion by the year 2015.

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eCheck Business Requirements

There are combinations of the four components. Valid combinations are:

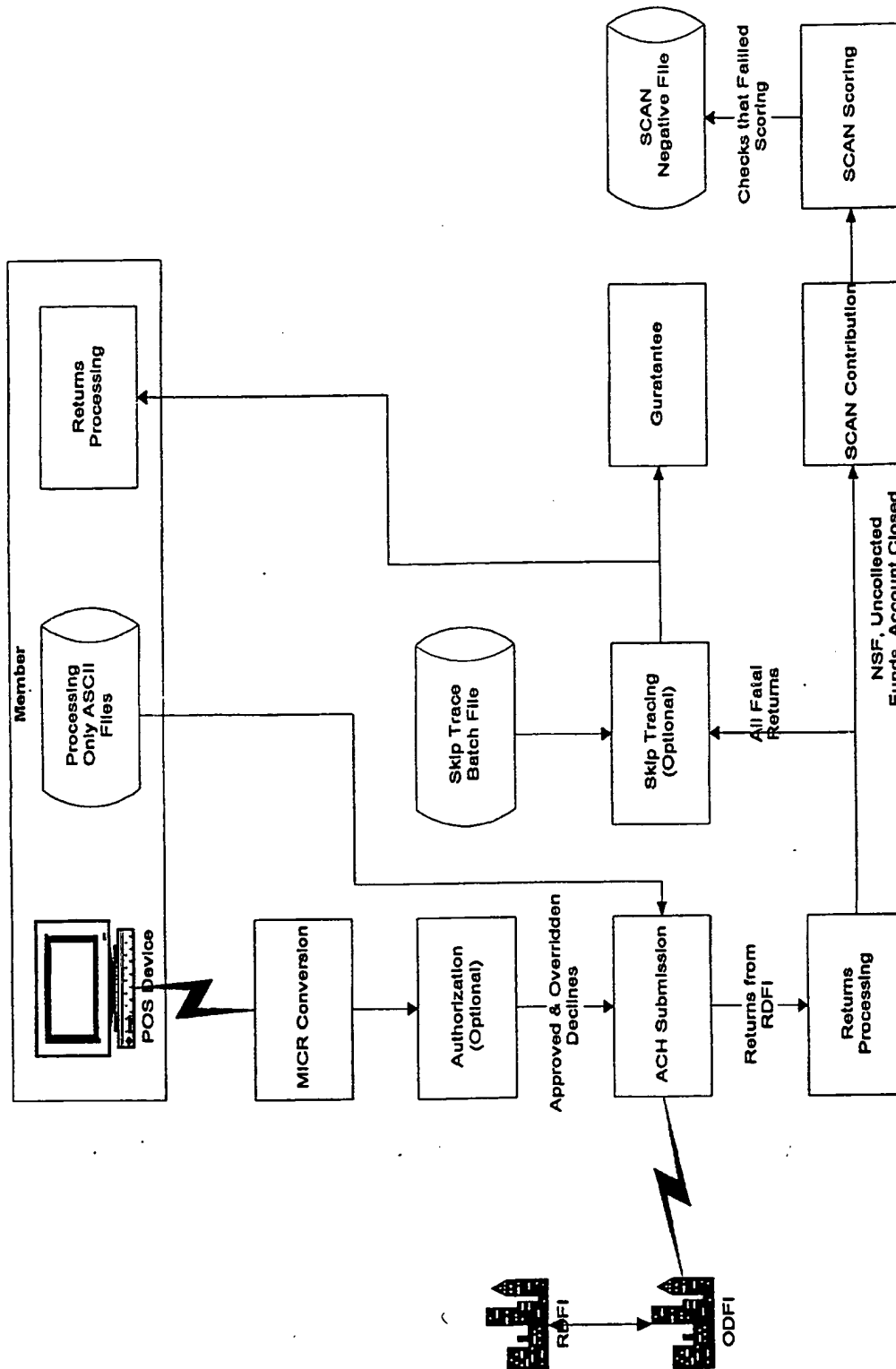
- Processing Only
- Processing and Skip Tracing
- Processing and Authorization
- Processing, Authorization, Skip Tracing and Guarantee

2.3 Product Flow Diagram

Below is a diagram showing the way the product should flow.

eCheck Business Requirements

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3 General Requirements

3.1 Processing

The processing component of the product includes the origination of the transactions to the ACH Network via various ODFI's, the reconciliation of returns from the RDFI's and the settlement of the transactions back to the Retailer.

3.1.1 Batches

A Batch is the process a Member uses to balance and submit transactions for processing. Batches are usually done at the POS Terminal, often on a shift change or some other significant event. Batches however could be submitted as ASCII Files, particularly if the Member is on Processing only and are using their own POS equipment and authorization procedures.

ECK - 102	The system will allow the Member to "close out" a batch by POS Terminal. Note: this ability will only be supported if the Members Terminal can support it.	Existing
ECK - 103	In the event that the Members terminals do not support closing of a batch then the batch will be closed by eFunds at predetermined times throughout the day. The actual times need to be configurable at the Store Level.	Jan 2000
ECK - 104	If the Member is using the systems predetermined times then they will be able to choose which of those times to use. Note: They must choose an existing time, they cannot create new times.	Jan 2000
ECK - 105	When a batch is closed the system will format all eCheck transactions from that POS Terminal received since the last batch close for submission to the appropriate ODFI.	Existing
ECK - 106	A batch must be closed four hours prior the next submission window for the applicable ODFI in order to be submitted during that window. Any batch closed less than four hours from the next submission window will be submitted during the following window.	Existing
ECK - 107	The system will accept ASCII Files with eCheck transactions in them for processing.	Existing

3.1.2 MICR Conversion

Req. ID eCheck Business Requirements Phase

MICR Conversion is the process of converting a printed MICR line to a Transit - Routing Number and Account number that is acceptable for submission to the ACH Network. The MICR would be converted in one of two places in the eCheck Product. The first place is just prior to authorizing against the PPS Positive File. The second place is prior to the actual submission of the MICR to ACH Network.

- ECK - 110 The system will convert the printed MICR to an ACH acceptable format. Existing
- ECK - 111 The system will retain the original printed MICR for future research and reporting. Existing

3.1.3 Submission to the ACH Network via the ODFI's

- ECK - 113 The system will comply with the NACHA rules regarding submission of eCheck transactions. During the interim the following rules apply:
 - The system will submit ACH transactions as a PPD Standard Entry Class code.
 - Transactions submitted will contain the unique descriptor "Purchase" in the Company Entry Description field in the Company Batch Header Record.
 Existing
- ECK - 116 The system will support unique ODFI's at a Member Level and/or the Members District or Regional Levels. If the member does require that we use different ODFI's at the District or Regional level then the member is required to indicate what locations are included in at District or Region Existing
- ECK - 117 The system will sweep closed batches for submission to the ACH Network at configurable intervals. Initially that interval will be hourly. Existing
- ECK - 118 The system will support the ability to generate and submit a transmittal file at the ODFI / submission file level. Existing

3.1.4 Requirements to be an in-house ODFI

This section describes the requirements to be an in-house ODFI for the eCheck Product. We want to steer an FI that wants to be an ODFI for the eCheck product towards the ACH Outsourcing product. The Phase column for this section applies to the ACH Outsourcing product.

- ECK - 895 All ACH Returns items resulting from ACH Entries that were originated by the eCheck Product must be returned to the Deluxe ACH Processing Center. Existing
- ECK - 896 The ODFI must not reinitiate or redeposit these returns. Existing
- ECK - 897 The ODFI must have the ability to provide the original eCheck Trace Number on an electronic return item file to the Deluxe ACH Processing Center (Not the FI assigned Trace Number.) Note: If the ODFI does not provide the eCheck original Trace Number it causes unmatched returns and greatly increases the time to work returns. This can be an issue with the ODFIs because most FI keep limited history on their ACH Systems. ACH Outsourcing keeps 90 days of on-line history. Existing

eCheck Business Requirements

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ECK - 898	The ODFI must be able to accept and process an electronic Dishonored Return File. Note: If an ODFI can not accept an electronic Dishonored Return file from the eCheck Product this will increase the manual processing for Deluxe.	Existing
ECK - 899	The ODFI must be able to provide an electronic Transmittal File for all files sent to the Deluxe ACH Processing Center. Note: This is needed to reduce manual processing and to ensure that files are received and processed in a timely manner.	Existing
ECK - 900	The ODFI must be able to provide an electronic Acknowledgement for all files received from the Deluxe ACH Processing Center within 15 minutes of receipt of the file. Note: This is needed to reduce manual processing and to ensure that the files have been received by the ODFI.	Existing
ECK - 958	The ODFI must provide an unique Routing - Transit Number to be a ODFI	

3.1.5 Returns Processing

ECK - 120	Transactions that are returned as "Unable to Locate / No Account" (R03) or "Invalid Account Number" (R04) will be handled as follows: 1. Research against the internal eFunds File 2. Match against the Deluxe Account Conversion File 3. Phone the RDFI 4. Re-initiated to the ACH Network if step three worked. 6. If hasn't cleared yet then submit a Draft. 7. If we determine the translation rule, it is entered on the system and automated.	Existing Except 2 2.-?
ECK - 127	Transactions returned as NSF (R01) or Uncollected Funds (R09) will be re-initiated up to a system-defined number of times (currently two times.)	Existing
ECK - 128	The system will maintain a default number of re-initiations at the Product level that is used if it is not defined for a Member.	
ECK - 129	All other return codes will be researched and re-initiated or be considered fatal per the attached Return Reason Table.	Existing
ECK - 130	Returns that cannot be re-initiated will be considered Fatal and handled per the Settlement Requirements below.	Existing
ECK - 131	Eligible Fatal Returns will be reported to the Returns Receiving Location by 10:00AM PST of the day after the item was determined to be fatal. The following table indicates who the Returns Receiving Location is for different conditions:	May 2000

Conditions	Returns Receiving Location
• Guaranteed	Guarantor
• Approved during the Authorization Process	

eCheck Business Requirements

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• Name and Address or Phone Available	
• Guaranteed	
• Declined during Authorization Process (overridden)	Member (Note the actual debit would come out of the End-Point Retailers Depository Account)
• Not Guaranteed	
• Approved Authorization Response	Member or other agency contracted by the Member.
• Name and Address or Phone Available or Skip Tracing not subscribed to.	
• Approved during the Authorization Process	
• No Name and Address or Phone Available	Deluxe.
• Skip Tracing is subscribed to.	

Note: Under the current authorization requirements we require that the sales associate record the Name and Phone Number on the sales receipt for transactions we don't have a Name/Phone Link for. This means that at least a Name and Phone should be available for every approved transaction.

- ECK - 152 If the Member has subscribed to Skip Tracing then returns will go through a Skip Trace process to attach the Name and Address or/and Phone Number of the Consumer. See Skip Trace Requirements below. Sept 99
- ECK - 153 The system will track the number of re-initiations at a transaction level for purposes of billing and reporting. Existing
- ECK - 154 The system will allow the guarantor to specify an interval between each re-initiation. This interval may be different by submission, so that first re-initiation may be immediate, but the second initiation could be 10 days from the last return.
- ### 3.1.6 Service Fee Processing
- ECK - 156 If a NSF or Uncollected funds item is successfully re-initiated then the Member has the option to submit a service fee via an ACH transaction provided the following conditions are met: Existing
1. The sales receipt must have NACHA approved verbiage on it informing the consumer that a service fee may be electronically collected should their bank return the transaction.
 2. The transaction was returned as a R01 or R09
- ECK - 159 A re-initiation is considered successful if no return has been received from the RDFI with a system defined number of days (currently 3.)

eCheck Business Requirements

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ECK - 160	The member may elect to collect service fees only for checks accepted at specific stores.	
ECK - 161	The system needs to have a configurable delay period for Service Fees by Member. The delay period is the number of days to wait after a re-initiation was successful before submitting the service fee.	Existing
ECK - 162	The system will support the ability to submit different fee amounts based on the following conditions: - Member / Guarantor (depending on who's responsible for the return) - State the check was accepted in. - The submission that the check was settled on (1st re-initiation or 2nd)	
ECK - 166	The system will insure that the fee does not exceed the legal fee amount for paper checks for the State the check was accepted in.	
ECK - 167	If the requested service fee exceeds the state maximum then the system will cap it at the state maximum.	
ECK - 168	The consumers' checking account statement needs to show the End-Point Retailers Name on the statement for service fees. There is currently a 16 character maximum length for this.	Existing
ECK - 169	The system will submit the guarantors phone number for consumer inquiries about the service fee in the ACH record. Note that this phone number may or may not appear on the consumers' statement depending on the RDFI.	Existing
ECK - 881	The system will support the ability to credit the service fee to a different depository account than original principle was credited to.	
ECK - 882	The system will support the ability to have a different name on the consumer's checking account statement for service fees than the one appearing for the principle.	

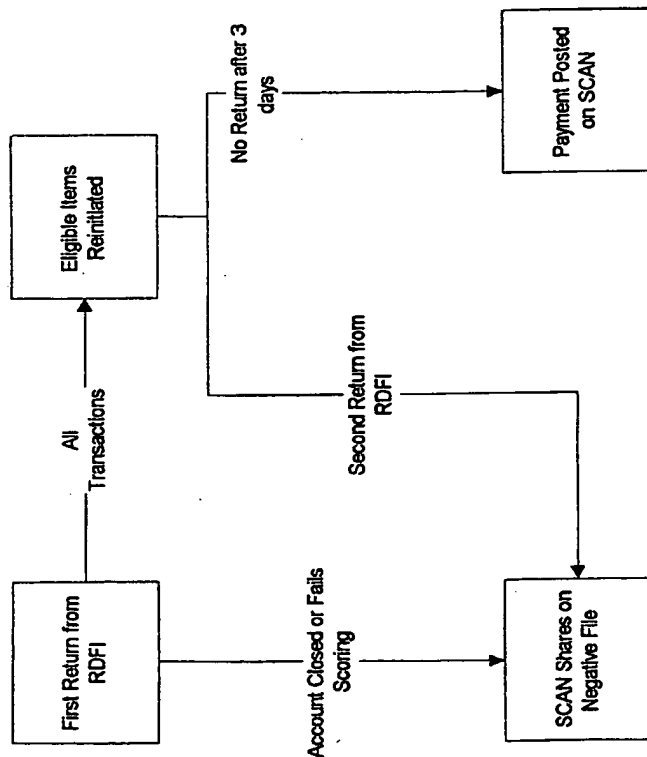
3.2 SCAN Contribution

ECK - 171	The eCheck product will be feed the SCAN Negative file through a contribution file daily. The diagram below shows how this works. Note that, unlike the SCAN R-Check Product, a check can be shared on the SCAN Negative file and also be reinitiated through the ACH Network.	May 2000
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Req.
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eCheck Business Requirements

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3.2.1 Eligibility

ECK - 174

Only transactions belonging to Members that meet the following conditions can be contributed to the SCAN File:

1. They must have a method of contributing payments received during subsequent collection efforts.
2. They must have a location that SCAN can refer consumers to for resolution of the check.
3. They must have a location that SCAN can refer FCRA Disputes to.
4. They have requested that eFunds contribute ads on their behalf to SCAN.
5. They are a SCAN member and have agreed to the SCAN Rules of Participation.

May 2000

3.2.2 Transaction Handling

ECK - 181

Account Closed (R02) will be contributed to the SCAN File in the next SCAN contribution file.

May 2000

eCheck Business Requirements

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ECK - 182	NSF (R01) and Uncollected Funds (R09) will be contributed to SCAN as soon as it fails the first time.	May 2000
ECK - 183	SCAN will share Account Closed items as soon as they are reported.	May 2000
ECK - 184	SCAN will share a check on the Negative file as soon as it has been returned by the RDFI for the second time. Note: This means that a transaction needs to be sent to the SCAN Host from eFunds when this event occurs. How that transaction looks will be documented in the design docs.	May 2000
ECK - 185	The system will submit a payment to SCAN in the next SCAN contribution file if the transaction has not been returned by the RDFI within a system configurable time frame (currently 3 days)	May 2000
ECK - 186	If a payment has been submitted to SCAN and the RDFI later returns it then a reversal will be sent to SCAN in the next contribution file.	May 2000
ECK - 187	Only original transactions may be submitted to SCAN. Service fees that fail is not eligible for SCAN Contribution.	May 2000
ECK - 188	SCAN will handle items contributed by eFunds on behalf of a SCAN Member per the consolidated return contribution requirements.	May 2000
ECK - 189	eFunds will include the eFunds Item ID in contribution file.	May 2000
ECK - 190	SCAN will mark eCheck-contributed items on the SCAN file as an electronic check.	May 2000
ECK - 191	Items that were originated as an e-check cannot be presented as an R-Check item.	May 2000

3.2.3 SCAN Contribution Scoring

ECK - 193	When NSF and Uncollected Funds checks are contributed to SCAN on the first return, the SCAN Host will score them using the R-Check 1 st deposit scoring rules.	May 2000
ECK - 194	If an item exceeds the score then it will be shared on the SCAN Network.	May 2000
ECK - 195	If an item passes the scoring then it will be held for final disposition before being shared on the SCAN Network.	May 2000

3.3 Skip Tracing

Skip tracing is the process of identifying the name, address and/or phone number for a transaction that is returned during ACH processing. Because

we propose using the consumer as keeper model for eCheck, this is a particularly important component of the process.

ECK - 198 Skip Tracing will be treated as a separate product option. This allows us to sell skip tracing as an add on to the Processing only product. It also allows us to exclude it when the member is using a check cashing card or club membership card etc. Sept 1999

ECK - 199 Skip Tracing will always be included with Guarantee product option. Sept 1999

ECK - 200 If the member subscribes to Skip Tracing, the system will conduct an electronic Skip Trace on all fatally returned transactions, regardless of the authorization status of the transaction. This means that overridden declines and unauthorized transactions will be skip traced. Sept 1999

ECK - 201 Skip Tracing will use the following electronic data sources in this order:
 1. Proprietary ID
 2. Internal Name and Address File
 3. Debit Bureau or Axiom.
 4. Credit Bureaus. Sept 1999

ECK - 206 The system will conduct electronic skip tracing on the same day as the item was determined to be a fatal return. Sept 1999

ECK - 207 The Debit Bureau or Axiom will respond to a skip trace request within one hour. Sept 1999

ECK - 208 When a name, address and/or phone number is obtained from an outside skip trace source the system will store that locally for 90 days.

ECK - 209 The system will have the capability to accept a batch file for skip tracing.

ECK - 210 Batch Files that are skip traced will be returned to the Member on the following morning by 10:00AM PST.

3.4 Settlement

Settlement for eCheck varies from that of R-Check in that there are more settlement options possible. These options are such things as:

- Settlement of the credits and debits to different accounts
- Fee settlement
- Skip Tracing Dependencies
- Product Selections
- POS Overrides
- Etc.

ECK - 219 The system will support a member configurable hold period for settlement. The hold period is the amount of time the money is held in a custodial Existing

Req.
ID

eCheck Business Requirements

Pha

	account prior to settlement to the member.		
ECK - 220	If the member has been assigned a hold period greater than zero then the system will insure that smoothing is not available.	May 2000	
ECK - 221	If the member has chosen a zero day hold then the system will turn on smoothing.	May 2000	
ECK - 222	The system will credit the member for the principle of the transaction on day one. Note: Unless the member does not have a 0-day hold period this credit occurs in the custodial account on behalf of the member.	Existing	
ECK - 223	In a remarketing environment the actual settlement will occur against the end-point retailers account. Note: Settlement reporting will be back to the Remarketer for distribution.	Existing	
ECK - 224	The system will use the following table to determine where the Debits and Credits are settled:	May 2000	

eCheck Business Requirements

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ID

<i>Conditions</i>	<i>Credits or Member Initiated Debits</i>	<i>RDFI Initiated Debits</i>
<ul style="list-style-type: none"> Guaranteed Approved during the Authorization Process Name and Address or Phone Available 	End-Point Retailer	Guarantor
<ul style="list-style-type: none"> Guaranteed Declined during Authorization Process (overridden) 	End-Point Retailer	End-Point Retailer
<ul style="list-style-type: none"> Not Guaranteed Approved Authorization Response Name and Address or Phone Available or Skip Tracing not subscribed to. 	End-Point Retailer	End-Point Retailer
<ul style="list-style-type: none"> Not Guaranteed Declined Authorization Response or Authorization not subscribed to. 	End-Point Retailer	End-Point Retailer
<ul style="list-style-type: none"> Approved during the Authorization Process No Name and Address or Phone Available Skip Tracing is subscribed to. 	End-Point Retailer	Deluxe

Fatally returned transactions that are debited to Deluxe will be debited against an account setup by Deluxe for these purposes.

May 2000

The system will support the ability to debit the members account for any product fees on a daily or monthly basis.

Existing

3.5 Authorization

Authorization is the process of authorizing an eCheck transaction at the Point of Sale. This process includes will include a variety of authorization mechanisms such as SCAN OnLine risk assessment, ID Verification, Proprietary ID matching etc. This section describes the business requirements needed for the authorization component of eCheck.

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eCheck Business Requirements

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3.5.1 Eligibility

There are basically two forms of authorization, partial and full authorization. Partial authorization consists of using the SCAN negative file and may also include authorization against the members' proprietary ID file. Full authorization adds the other authorization sources to the mix. See the section on Authorization Sources for more detail.

ECK - 256

The system will allow a Member to do full partial, or no authorization of their e-check transactions at the Point of Sale. This is determined at the Member level, which means that we will not support an environment that has the same Member doing some partial authorization and some full authorization.

May 2000

ECK - 257

The system will insure that full authorize will only be done for transactions belonging to members that are contributing SCAN Members.

May 2000

ECK - 258

The system will allow partial authorization for any Member, regardless of SCAN Member status.

May 2000

3.5.2 Authorization Sources

The eCheck product has several authorization sources available to it. An authorization source is defined as any process that occurs to a transaction that may cause a decline or invalid id response to Point of Sale. The following table describes those authorization sources.

Authorization Source	Trigger	Possible Action
VTP	Always available	Always Accept or Always Decline
Maximum Check Amount	Always available	Decline if amount exceeds <u>maximum amount</u> .
PPS Positive File	The FI subscribes to PPS and the system is 100% accurate for MICR conversions for that FI.	Invalid ID if account is not found on the file
PPS Negative File	Always available	Decline if account has been reported as account closed in the PPS File.
SCAN Negative	Partial Authorization subscribed to	Decline if account is negative.
SCAN OnLine	Subscribes to SCAN OnLine and is a SCAN Contributing Member	Decline if risk parameters were exceeded.

Req.
ID

eCheck Business Requirements

Pha

Proprietary ID	Member provides proprietary ID File.	Decline if Proprietary ID is not found in the file.
Check Digit Routines	Always available	Unknown

The system will have the ability to turn off or on different authorization sources at the store level.

May 1999

ECK - 879 The system will maintain a list of those authorization sources that are mandatory. If the authorization source is mandatory then it may not be turned off.

Existing

3.5.2.1 VIP

ECK - 913 The system will support the ability for the Member to specify Account Numbers that are be treated as an "Always Approve", "Always Decline" or "Manual Accept"

ECK - 914 If the response is "Always Approve" then the system will issue an Approval Response and process it in exactly the same manner as an Overridden Decline.

ECK - 915 If the response is "Always Decline" then the system will issue a Decline Response. This Decline cannot be overridden by the Member.

ECK - 961 If the response is "Manual Accept" then the system will issue a Manual Accept Response and process it per the Manual Accept requirements.

ECK - 916 VIP Accounts are to be maintained at the Member Level. We do not support VIP at the small retailer level.

Existing

3.5.2.2 Maximum Check Amount

There are three flavors of maximum check amount. The first is a system wide maximum check amount that corresponds to a NACHA Maximum. The second is a Member specified maximum amount. The final is a Retailer level amount that can be imposed due to risk management needs.

3.5.2.2.1 System Wide Maximum

ECK - 917 The system will support a system wide Maximum Check Amount that complies with the NACHA specified maximum check amount.

Existing

ECK - 918 If the check exceeds the maximum check amount then it will issue a Decline Response. This Decline cannot be overridden by the Member.

Req.
ID

eCheck Business Requirements

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Jan 2000

ECK - 931

The system will support a Member Specified Maximum Check Amount.

Jan 2000

ECK - 933

The Member will be able to use the SCAN OnLine Administrative environment to control this parameter. NOTE: This is currently done via the SCAN OnLine system in a roundabout way. We will want to change this to an actual explicit parameter on SCAN OnLine.

Jan 2000

ECK - 932

If the check exceeds the maximum check amount then it will issue a Decline Response. This Decline may be overridden by the Member.

3.5.2.2.3 Risk Related Maximum

ECK - 935

The system will support the ability to specify a maximum amount at the end-point retailer level (company ID.) for the purposes of risk management.

ECK - 936

If the check exceed the maximum check amount then it will issue a Decline Response. This Decline may not be overridden by the Retailer.

3.5.2.3 PPS Positive File

ECK - 919

The system will match the DDA Converted Transit Routing Number and Account Number against the Primary Pay Positive File under the following conditions:

1. The FI the check is drawn upon (RDFI) is a contributor to the Primary Pay Positive File
2. The Conversion algorithms convert the printed account number to the DDA format are historically accurate per a system maintained percentage.
3. The Account has not been successfully matched against the PPS file within a system-maintained number of days.

ECK - 920

If the account is not found on the PPS Positive file the system will issue an Invalid MICR response. This response can not be overridden by the member.

ECK - 921

If the account is found on the PPS Positive file the system will mark that item as having been successfully matched.

3.5.2.4 PPS Negative File

ECK - 922

The system will match the DDA Converted Transit Routing Number and Account Number against the Primary Pay Negative File if the FI the check is

drawn upon (RDFI) is a contributor to the Primary Pay Negative File.

ECK - 923 If the account is found on the PPS Negative file and is either Account Closed or is NSF then the system will issue a Decline. This Decline can be overridden by the Member.

3.5.2.5 SCAN Negative

ECK - 924 The system will always match the printed Transit Routing Number and Account Number against the SCAN Negative File.

ECK - 925 If the account is found on the SCAN Negative File then the system will issue a Decline. This Decline cannot be overridden by the Member.

3.5.2.6 SCAN OnLine

ECK - 937 The system will allow the member to use any current SCAN OnLine product mix at P.O.S.

ECK - 938 | ~~The Member may not use any "Refer" Responses that are on SCAN OnLine. These would be treated as a Decline.~~

ECK - 939 Any response from SCAN OnLine may be overridden by the Member.

3.5.2.7 Proprietary ID

There are two ways to process a Proprietary ID. The first is simply a store and forward process. The second is a verification of the ID.

ECK - 943 The system will support the ability to receive a Proprietary ID from the member in an incoming transaction.

3.5.2.7.1 Store and Forward

ECK - 942 If the member has specified a store and forward process then the ID is only stored for future reporting.

ECK - 945 The member has the option of specifying that the Proprietary ID is Mandatory or Optional.

ECK - 946 | If the member has specified that the Proprietary ID is Mandatory, then the field must be filled on the incoming transaction.

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ECK - 947

If the field is mandatory and it is not in the transaction then the system will issue an Invalid ID Response. This response may be overridden by the member.

3.5.2.7.2 Verification

ECK - 949

If the member has specified that we verify the Proprietary ID then they must provide a file of valid ID's to Deluxe.

ECK - 950

The Proprietary ID file must be updated on a regular basis (usually on a daily basis Mon - Sat)

ECK - 951

The system will require that a Proprietary ID exist on every transaction coming from the member.

ECK - 952

If a transaction does not have the Proprietary ID it will issue a "Missing ID" response. This response may be overridden by the Member.

ECK - 953

The system will match the ID against the member provided file.

ECK - 954

If the ID is not in the member's ID file then the system will issue a "Invalid Proprietary ID" response. This response may be overridden by the Member.

3.5.2.8 Check Digit Routines

ECK - 955

The account number portion of the printed MICR will be verified using a check digit routine under the following conditions:

1. The bank has provided a check digit routine and has authorized its use for this purpose.
2. The account number has not been verified successfully previously.
3. The last time the account number was verified is greater than a system-maintained number of days.

ECK - 956

If the account passes the check digit routine then the system will mark the account as having been successfully verified.

ECK - 957

If the account fails the check digit routine then the system will issue an "Invalid ID" Response. This response may not be overridden by the member.

Existing

3.5.3 Point of Sale Processing

ECK - 295

The system will reject and notify the sales associate when a transaction is a duplicate. Duplicate is defined as having the same Transit-Routing Number, Account Number and Check Number as an earlier non-voided transaction accepted within the last 90 days. Note: this will allow a sales

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associate to void a transaction and resubmit it with corrected information.

ECK - 296 If a transaction is a duplicate within the current batch, then the system will allow the sales associate to re-print the original sales receipt from the first transaction. Existing

ECK - 297 Every transaction, regardless of status, will be assigned a unique identifier upon entrance into the eCheck System.

ECK - 298 The system will support optional manual entry of the MICR line at the member level. This is configured at the Member level and is used if the MICR Reader goes down or there is a miss-read. Existing

ECK - 299 If an item was entered manually then the system will do the following:
 • Log it on the transaction as manual entry
 • Pass it on to SCAN OnLine for possible scoring impacts.
 • Print on the receipt "Manual Entry".
 Jan 2000

3.5.4 Sales Receipt

ECK - 304 The P.O.S. Device is responsible for printing a sale receipt to be given to the consumer under the following conditions:
 • The transaction was approved
 • The transaction was declined but overridden
 Existing

ECK - 307 The sales receipt will have the following information on it:
 • The End-Point Retailer Name
 • The End-Point Retailer Phone Number or Guarantors Phone Number
 • The End-Point Retailers' Address
 • The Transaction Date
 • The Terminal Number or Member ID
 • The Transit-Routing Number
 • The Account Number Masked. All "X" except the last 4 digits.
 • The Transaction Amount
 • The Check Number
 • The Receivers ID Number (Transaction Number)
 • A Signature Line
 • NACHA approved language indicating the check is being presented electronically and that a service fee may be assessed if the check is dishonored.
 Existing

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ECK - 320	<p>The sales receipt will have the following optional fields:</p> <ul style="list-style-type: none"> Printed Name Line to be used for hand printing the consumers' name. Phone Number Line to be used for hand printing the consumers' phone. Optional Phone Number. Open Field that allows the member to print a configurable message ("Thanks for shopping at", "Remember our sale next week", etc.) 	Jan 2000
ECK - 325	The sales associate will attach the consumers' copy of the receipt to the voided check and return it to the consumer at POS.	Member
ECK - 326	<p>The Member must retain a printed receipt with, at the minimum, the following information:</p> <ul style="list-style-type: none"> The Receivers ID Number Date and time of the transaction. The Signature Line with the consumers' signature. 	Member

3.5.5 Alternate ID Processing

Under certain conditions an alternate form if Identification needs to be presented during the authorization process. This section contents the requirements that deal with this condition

ECK - 332	The system will support the ability to process up to two alternate ID's. An alternate ID is defined as a Drivers License, Social Security Number, Phone Number or Proprietary ID (Frequent Shopper Card, Check Cashing Card etc.)	Jan 2000
ECK - 333	It the system is processing two alternate ID's then one of them must be a DL Number.	Jan 2000
ECK - 334	The type of alternate ID is controlled at the Member / Store level. This means that for the same member some stores use DL while others could use SSN, and still others may use Phone Number etc.	Jan 2000
ECK - 335	<p>The system will require an alternate ID to be presented under the following conditions:</p> <ul style="list-style-type: none"> The member has a proprietary ID. The member requires an alternate ID and one of the following conditions apply: <ol style="list-style-type: none"> The link has been established for the first time less than 18 days before the current date. There is no valid alternate ID linked to the MICR. The alternate ID link has expired (links expire after 90 days) The alternate ID linked to the MICR is not valid for that Member/Store An authorization source requires it for any reason. Usually this is due to high-risk parameters or negotiated Guarantee needs. 	Jan 2000

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ECK - 342	The initial transaction from a POS Device will include both the MICR and the Proprietary ID if the member uses a proprietary ID.	Jan 2000
ECK - 343	If a transaction requires an alternate ID the terminal will specify the type of ID in the prompt. Note: This prompt can occur either before the transaction is sent to eFunds or as a result of a response back to the terminal.	Jan 2000
ECK - 344	<p>The system will always validate the format of the alternate ID as follows:</p> <ul style="list-style-type: none"> • DI's are validated by state against the SCAN DL Mask. • SSN must be 9 digits (do we also validate vs. a SSN file somewhere?) • Phone Number must have area code and be 10 digits in length. • Proprietary ID's must match a valid ID in the Members ID Auth. File 	Jan 2000
ECK - 349	<p>If the system will support the ability to allow the member to take the following action if there is a required alternate ID but one is not provided or the one provided fails the edit (this is configurable not mandatory):</p> <ul style="list-style-type: none"> • Prompt the sales associate to re-enter the ID • If it is still invalid or missing the system will respond with an "Invalid ID" message. 	Jan 2000
ECK - 352	The system will allow the sales associate to override an Invalid ID message.	Jan 2000
ECK - 353	Proprietary ID's may only be used for authorization by the member that provides the proprietary ID.	Jan 2000
ECK - 354	The system will allow the member to include a Proprietary ID in the transaction for non-authorization purposes. This would be considered a store and forward type of field.	Existing
3.5.6 Voids		
ECK - 356	The system will allow a Sales Associate to "Void" a transaction up to the closure of that terminals batch.	Existing
ECK - 357	When a transaction is voided the system will insure that it is not submitted to the ACH network.	Existing
ECK - 358	A transaction that has been voided will not be used for determining duplicate transactions.	Existing
ECK - 359	If a transaction is voided after it has been authorized by SCAN OnLine a reversal for that transaction will be posted to SCAN OnLine. (Note: this is needed for risk scoring models)	Existing
ECK - 360	The Member must call a support rep. to reverse a void. Reversing a void can not be done at Point of Sale.	Existing

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ECK - 361	The Member must, on demand, provide the support representative with written confirmation prior to reversing the void.	Existing
ECK - 362	If a void has been reversed then it needs to be posted to SCAN OnLine.	Jan 2000
ECK - 363	The system will print a receipt for a Void. The receipt will have the following fields: <ul style="list-style-type: none"> • Transaction Date • Receivers ID Number • Terminal Number or Member ID • The word "VOID" 	Existing

3.5.7 Reversals

A reversal is the backing out of a previously processed transaction. In most cases a reversal occurs after the transaction has already been processed and is in effect a credit transaction that would be posted to the consumers' checking account. This would result in a debit to the Members depository account.

ECK - 370	The system will allow authorized users to reverse a transaction up to 5 days after the transaction was submitted.	Jan 2000
ECK - 371	A reversal must be a full reversal. No partial reversals are allowed (i.e. reversing \$20.00 of a \$50.00 transaction.)	Jan 2000
ECK - 372	The system will insure that a transaction that has been returned by the RDFI can not be reversed.	
ECK - 373	The following occurs when a reversal is initiated:	
ECK - 374	<ul style="list-style-type: none"> • The system will submit an ACH reversal through the ACH Network. This has the work "Reversal" in the Entry Description Field 	Existing
ECK - 375	<ul style="list-style-type: none"> • The retailers depository account will be debited the amount of the reversal. 	Existing
ECK - 376	<p>If a reversed transaction is later returned by the RDFI then the system will place the item in a queue to be handled manually by a reconciliation specialist. Currently the manual process is as follows:</p> <ul style="list-style-type: none"> • The system will submit an ACH reversal through the ACH Network. This has the work "Reversal" in the Entry Description Field • The retailers depository account will be debited the amount of the reversal. 	Existing

3.5.8 Credits

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A credit is the process of reimbursing the consumers' account for an earlier transaction. This usually occurs as a result of the consumer returning the purchased goods.

NOTE: Credits are not going to be part of the anticipated product release. Should we decide to include them at a future point in time these requirements would apply.

ECK - 892 Credits will be processed through the ACH environment as a PPD transaction

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ECK - 381 The system will allow full or partial credits for a transaction up to 90 days after the original transaction was tendered.

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ECK - 382 The system will insure that the total of all credits for a transaction never exceeds the amount of the original transaction.

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ECK - 383 If a credit will cause the total to exceed the original transaction amount the system will decline the entire transaction.

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ECK - 384 The system will require that the receivers ID number (transaction number) printed on the original receipt be entered at point of sale and submitted in the transaction.

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ECK - 385 For the purposes of reporting the credit will always be tied to the original transaction.

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ECK - 386 The system will allow authorized users to activate or deactivate credit capture capabilities at the terminal level, store level or member level.

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ECK - 387 The terminal, the store and the member must all be activated for credit capture before that terminal can issue a credit. If any one of these are turned off then that terminal may not issue a credit.

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3.5.9 External Authorization Sources

ECK - 389	The system will support the capability to switch out to external authorization sources.	Existing
ECK - 390	If an external authorization source either fails to respond within a 2-second window or abstains then the system will not consider it in the authorization process.	Existing
ECK - 391	The system will support the ability to validate a Members Proprietary ID Number at the Point of Sale.	Jan 2000
ECK - 392	If the system does not find the ID in the Member Proprietary ID File then it will follow the invalid id logic described under authorization responses.	Jan 2000
ECK - 393	The system will match the transit-routing number against a database of known travelers checks transit-routing numbers.	
ECK - 394	If a match is made against the travelers check transit routing number then the system will issue a decline.	

3.5.10 Authorization Responses

ECK - 396	<p>The system will need to support the following responses back to point of sale:</p> <ul style="list-style-type: none"> • Approve • Decline • Need alternative ID – the message will specify the type of ID • Invalid ID • Manual Accept • "Call Me" 	Jan 2000
ECK - 401	The system will need to support custom POS Messages.	Jan 2000
ECK - 402	The system will log all responses by transaction.	Existing
ECK - 403	If any authorization source, internal or external, declines a transaction then the transaction is declined.	Existing
ECK - 404	<p>When a transaction has been approved the following occurs:</p> <ul style="list-style-type: none"> • The POS Terminal will issue a "Approve" response. • The transaction will be included in the next batch for that terminal. 	Existing

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ECK - 423	The system will allow the sales associate to override a soft decline or an invalid alternate ID response.	
ECK - 424	When a decline is overridden the system will flag it as overridden. This impacts settlement, reporting, returns processing and guarantee.	Jan 2000
ECK - 425	When a decline is overridden the system will process it normally for ACH submission.	Existing
ECK - 962	Overrides can be turned off at the Member Level.	

4 Report Requirements

Reporting requirements cover all reports, both internal and external, needed for the eCheck product.

4.1 Reporting Standards

ECK - 429	The system needs to support four formats for reports: Microsoft Word compatible text, comma delimited ASCII file, Fixed Length ASCII File, Microsoft Excel Worksheet.	Jan 2000
ECK - 430	All report formats for the same report will include the same transactions, though the actual fields may differ. Example: In many cases the ASCII Files will have more fields than the text file.	Jan 2000
ECK - 431	The actual format for a specific report is configurable at the member and report level.	Jan 2000

4.2 Report Delivery

Due to the potential number of Members, report delivery will be a crucial part of the product. There are four primary methods of report delivery: Electronic Retrieval, Electronic Delivery to the Members System, Printing from the POS Terminal and Fax.

ECK - 434	In the case of remarketing members and ISO's the system will deliver consolidated reports to the remarketer or ISO. It is the responsibility of the remarketer or ISO to then split the reports and distribute them to their customers. NOTE: eFunds is acting as a remarketer for the small merchants they have as customers so they'll still be sending reports to those customers direct. We will not however deliver reports to other Remarketers customers.	Sep 1999
ECK - 435	The system will allow the delivery of the same report to multiple sources. This would be a billable service.	Jan 2000

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4.2.1 Electronic Report Retrieval

Electronic Report Retrieval is the process of allowing a Member to pickup their report electronically. This could be done via the Internet, a mailbox, or some sort of bulletin board environment.

ECK - 438	The system will make available to the Member their daily report(s) via a secure file pickup environment (probably an Internet Web Site)	Jan 2000
ECK - 439	The system will insure that a Member can only retrieve their reports.	Jan 2000
ECK - 440	The system will allow a Member to retrieve any of their reports up to 45 days old	Jan 2000
ECK - 441	The system will show the Member which reports have not been retrieved yet.	Jan 2000

4.2.2 Electronic Delivery

The key component to the Major and National Retailer Reporting is that we will need a greater degree of flexibility in report delivery. In many instances we will be required to dial into and drop them off in an ASCII file format to one of their systems. The second component is that they tend to be much stricter in their security requirements particularly regarding the Internet.

ECK - 444	The product needs to support the ability to deliver the reports to the members system. (Protocol requirements are in the compatibility sections)	Jan 2000
ECK - 445	The system needs to insure that all reports are encrypted as long as they are on a system that may be accessible to the outside world (at SCAN that would be while they are on our web server)	Jan 2000

4.2.3 Terminal & ECR Report Delivery

ECK - 447	The system will allow an authorized user to download and print their daily reports from a POS Terminal or ECR.
ECK - 448	Reports delivered in this way will contain data for the whole member, it is not terminal or locations specific reporting.

4.2.4 Fax

Sept 1999

ECK - 450 The system will have the capability to automatically Fax reports to a member's Fax machine.

4.3 Daily Reporting to the Member

There is a single daily reporting consisting of the settlement activity, processing activity, and returns activity.

ECK - 453 The daily report will be distributed to Major Retailer, National Retailers, and Re-marketers on a daily basis. We do not distribute reports to retailers belonging to a Re-marketer.

ECK - 454 The Member will have the option to receive all three sections of the report or any combination of sections. Though it is recommended that they always receive the settlement section. Existing

ECK - 455 The Member will have the option to receive either a detail transaction report(s) or summary report(s) Existing

ECK - 456 The system needs to support the ability to provide the Member with historical daily reports up to 45 days old. Existing

4.3.1 Settlement Section

Settlement Reporting is the process of reporting back to the Member the debits and credits to their depository accounts or the depository accounts of the end-point retailers they are responsible for (Re-marketers).

ECK - 459 The settlement section of the report will contain all settlement activity for the Member. Existing

ECK - 460 The settlement section will include at the minimum the following fields: Existing

- Settlement Date
- Transit-Routing Number
- Account Number
- Check Number
- Check Amount
- Funded Amount (Debits are indicated with a negative amount)
- Check Acceptance Location
- Terminal ID if available
- eFunds Item ID
- ACH Trace Number

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4.3.2 Processing Section

ECK - 472	Processing Reporting is the process of reporting to the Member all processing that was done for them regarding eCheck.	
ECK - 473	<p>The Processing Report will include all transactions that were processed by the eCheck product. This includes the following:</p> <ul style="list-style-type: none"> • Submitted to the ACH Environment (both Principle & Fees) • Declined at POS • Overridden Declines • Manual accepts • Voids 	Jan 2000
ECK - 479	<p>The Processing Report will include, at the minimum, the following fields:</p> <ul style="list-style-type: none"> • Date and Time of the Transaction • Transit-Routing Number • Account Number • Check Number • Check Amount • Processing Action (Submitted, Declined, Overridden etc.) • Check Acceptance Location (Store #, Bank Branch, Catalog Center, etc.) • Terminal ID • eFunds Item ID 	Jan 2000
ECK - 489	The report can be configurable to mask the Account Number at the Member Level.	Jan 2000
ECK - 490	The Account Number Mask will be a series of "X's" leaving only the last 6 digits legible.	Jan 2000
ECK - 491	The system will default to Account Number masking if not otherwise specified at the member level.	Jan 2000

4.3.3 Returns Section

Returns Reporting is the reporting of those items that were returned by the RDFI's. Returns Reporting can go to up to three different places: The Member, The Guarantor, and Deluxe.

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ECK - 494	The Returns section will include either all return activity or just fatal returns at the Members option. Refer to the ACH Return Code Table for handling.	Existing
ECK - 495	The return section must be at the detail level. We will not support summary only for this section.	Existing
ECK - 496	If the Member is on a guarantee program then the will only receive items that are were not guaranteed (below floor limits, not authorized, or overridden declines)	Existing
ECK - 497	The Guarantor will receive return items that they guaranteed sorted by member.	
ECK - 498	The Returns Report will include, at the minimum, the following fields: <ul style="list-style-type: none"> • Date of the return • Transit-Routing Number • Account Number • Check Number • Check Amount • Status (re-initiated, UN-collectable/fatal) • Check Acceptance Location • eFunds Item ID • will be contributed to SCAN (Y/N) • Return Reason • Ownership of Fatal (Member/Guarantor/Deluxe) 	Jan 2000
ECK - 510	If the Member has a proprietary ID file then the report will include that ID Number.	Jan 2000

4.3.4 Skip Tracing Report

ECK - 512	<p>If Skip Tracing is being used then these additional fields will be included:</p> <ul style="list-style-type: none"> • Consumers First and Last Name • Consumers Address Block (Street, City, State, Zip) • Consumers Phone Number • Any additional names or addressees • Full MICR line as printed on the check and Check Number • Any additional ID presented at POS. This would include any proprietary ID used. 	Jan 2000
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4.4 Periodic Reporting to the Member

Periodic reporting to the member mainly consists of summary data that would primarily be used for Depository Account Reconciliation and GL Reconciliation. Most of this reporting would be done based on a calendar month; however, the system will need to be flexible to allow other periods to be included in the reports.

ECK - 521	The system will allow the Member to define whether reporting is a weekly or monthly period.	Jan 2000
ECK - 522	The system will allow the Member to define the day of the month or day of the week periodic reporting is to occur on (i.e. every Tuesday, or on the 5th of the month etc.)	Jan 2000
ECK - 523	The system will allow the Major and National Retailers to run these reports on demand for a user specified time period.	May 2000
ECK - 524	A Quarter is defined as three-month periods starting in Feb, May, Aug, November.	Jan 2000
ECK - 525	A Year is defined as starting on Feb and going through the next Jan.	Jan 2000

4.4.1 Settlement Summary Report

The settlement summary report is a report that lists by day the settlement activity that occurs for a specific depository account.

ECK - 528	The settlement summary report will be sorted by settlement date	Existing
ECK - 529	The settlement summary report will include the following fields: <ul style="list-style-type: none"> • Settlement Date • Settlement Amount (Debits are shown as a negative amount) • ACH Trace Number 	Existing

4.4.2 General Ledger Report

Major and National Retailers frequently need to have General Ledger Feeds for their accounting systems. While they could probably handle this off of the daily files it may be necessary to provide this to them.

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ECK - 535	The system will support the ability to create custom reports by member.	Jan 2000
ECK - 536	The system will support the ability to have industry standard reports for commercial accounting systems. These standard file sets will evolve over time as we identify more accounting systems we want to support. Initially we will probably want to support Cubs since that will be a SCAN approved system.	May 2000
ECK - 537	General Ledger reports will be charged for.	May 2000

4.5 Value Reporting

We need value reporting for the Major and National Retailers. These are reports that allow us to continually prove the value of the product, and would be used primarily be field and sales staff during their calls with the members.

ECK - 540	<p>The system will support a value report that includes the following information:</p> <ul style="list-style-type: none"> • Total Transactions • Return #, \$, and % • Write Off #, \$, and % • Service Fees collected #, \$, and % • Average days to return • Average days to SCAN Contribution • Multiple Check Writers 	May 2000
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4.6 Performance Reporting

ECK - 549	The system will support performance reporting. Performance reporting will indicate the profitability of customers.	Existing
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4.7 Statistical Reporting

The Business Analysts on there own system (SAS) would do statistical Reporting. The reporting here would consist of fixed length ASCII Files to feed that system on a daily basis. This is the Analytic File.

ECK - 552	The system will create a fixed length ASCII file of daily transaction detail referred to as the Analytic File	Jan 2000
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eCheck Business Requirements

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ECK - 553

The Analytic File will include data from the following sources:

- Daily POS Activity (including accepts, declines, overrides etc.)
- Daily Settlement Activity
- Daily Returns Activity
- Daily Skip Tracing Activity

Jan 2000

4.8 Support Reporting

Support Reporting is the system reporting that would be used to determine the health of the system. It would also be used to identify potential problems as the Members POS. These reports would generally not be published on paper; rather they would be available for viewing on-line.

ECK - 560

The system will generate a daily run log report (eFunds probably already has one of these, so does SCAN)

Jan 2000

ECK - 561

The system will make available the following statistics on a Member / Location basis (location = store, bank branch, property etc.)

Jan 2000

- POS transaction totals
- Returns totals by reason
- Skip tracing totals and success rate
- Settlement totals
- Service Fees
- Response Times

ECK - 568

The Member Statistics will be based on the POS transactions for time frame requested. That means that if the user chose 1/20/99 - 1/22/99 as the time frame then the Returns, skip tracing, and settlement totals would be for the transactions taken at POS during that time frame.

Jan 2000

4.9 Risk Reporting

ECK - 570

The risk reporting system will be used to monitor, diagnose, and minimize the risk associated with electronic check. A set of risk reports will be compiled and managed by portfolio specialists. The reports will allow for the monitoring of the following areas:

- Decline activity by member/store
- Summary transaction and ACH activity by product, period, and member/store
- Summary returns, collection and write-off activity by period, reason code, and member/store
- Skip tracing totals, success rate, and usage rate

ECK - 575

These reports will be viewable online with the option to print locally.

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ECK - 576 The portfolio specialists will share the same computer system as the business analysts. This computer system will include sufficient analytical tools, i.e. statistical package and a relational database, so as to allow for the creation of ad hoc reports in addition to regular risk reports.

ECK - 577 This reporting system would be provided with the following files and reports:
Analytic File: POS, settlement, returns, and skip tracing activity for each transaction.
Support Reports: Member and location data with respect to the transaction.
HOLR Reports: Declines, errors, billing, risk analysis and referral summary reports.

ECK - 581 Business analysts and portfolio specialist will have limited access to generating HOLR reports as ASCII files; all requests for printed reports must go through the Admin Group.

4.10 ODFI Reporting

The ODFI Reporting has two primary reports. The first is a report that gets distributed to the ODFI. The second is an internal report.

4.10.1 ODFI Report

ECK - 583 The system will need to be able to produce an ODFI summary report on a daily basis.

Existing

ECK - 584 The report will show the number and amount of transactions by debit and credit.

Existing

ECK - 585 The Report should be optionally subtotaled by DDA account.

Existing

ECK - 586 The report should be able to be printed monthly showing the debit and credit number and amounts by date.

Existing

4.10.2 Internal ODFI Report

ECK - 888 The system will need to be able to produce an ODFI trend report. (Need additional req.'s here...)

5 Consumer and FCRA Requirements

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eCheck Business Requirements

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Existing

ECK - 407

- When a transaction has been declined the following occurs:
- The POS Terminal will issue a "Decline" response.
 - The sales associate will issue the appropriate referral card indicating that the transaction has been declined.
 - The transaction is not submitted to the ACH environment unless the Sales Associate overrides the transaction.

Jan 2000

ECK - 411

- If the response is "Invalid ID" the following occurs:
- The POS Terminal will prompt the user to re-enter or re-scan the ID in question (MICR/DL/SSN etc)
 - If the ID is still invalid then the system will issue a "Invalid ID" response to the sales associate.
 - The sales associate will issue the appropriate referral card indicating that the ID was invalid.
 - The transaction is not submitted to the ACH environment unless the Sales Associate overrides the transaction.

Jan 2000

ECK - 416

- If the response is "Needs alternative ID" the following occurs:
- The system prompts the sales associate to enter the correct form of ID. For example: "Enter Phone Number:"
 - The system will place the original transaction on hold, pending the response from the sales associate.
 - Once the sales associate enters the ID it will validate and authorize the ID per the alternate ID rules above.
 - Any transactions being held for a second ID at the time of the closure of its batch will be reported on the batch report and treated as a void.

Existing

ECK - 883

- If the response is "Manual Accept" the following occurs:
- The system will issue a "Manual Accept" response
 - The transaction will not be submitted to the ACH environment.
 - The sales associate may not override the response

Jan 2000

ECK - 884

- If the response is "Call Me" the following occurs:
- The system will issue a "Call Me" response (actual wording to be determined)
 - The system will flag the check as a Call Me transaction
 - The transaction will not be submitted to the ACH environment
 - The sales associate may not override the response

3.5.11 Overrides

Existing

ECK - 422

- The system will not allow the sales associate to override a hard decline or an invalid MICR response. A hard decline is a decline for potential fraud. These will be determined for each authorization source as they are added to the system.

Req.
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eCheck Business Requirements

Pha

The Consumer and FCRA requirements deal with the interaction with the consumer once they have been handed a SCAN referral card.

ECK - 589

If an item referral location is Deluxe then the call will be transferred to a Deluxe Recovery Specialist.

ECK - 590

The system will determine if a consumer was turned down at an eCheck participating member.

ECK - 591

If the consumer was turned down at an eCheck participating member then the system will allow the entry of a Social Security Number or proprietary ID (major retailers only) instead of the DL Number along with the MICR.

ECK - 592

The system will display to the user the following information the MICR and/or ID (DL, SSN, or proprietary ID):

- All decline reasons (SCAN OnLine, Negative Files, ID Files etc.)
- All unpaid checks or transactions on the SCAN File
- All return activity on their eCheck transactions

Fields	Archival Period
All POS Activity (date, time, place, check #, amount)	90 Days
All decline reasons (SCAN OnLine, Negative Files, ID Files etc.)	90 Days
All unpaid checks on the SCAN File	3 years
All return activity on their eCheck transactions	90 Days

ECK - 612

The Call Center will use current procedures for Dispute handling (FCRA Mandated Rules)

ECK - 613

The FCRA Reports will also include the additional information from other authorization sources.

6 Member Inquiry Screen

Because there could be a period of time where a consumers check is on the SCAN Negative file but the member has not yet entered the item on their own system, we will have to provide the member with the ability to inquire on the SCAN System and look at their own items.

May 2000

ECK - 616

The system will have a Checks Inquiry screen that allows authorized members to inquire on their own checks.

May 2000

ECK - 617

The screen will only allow inquiries. No change, add or delete activities are allowed.

May 2000

ECK - 618

The screen will have a browse function that allows the user to browse the most recent days contribution to SCAN

May 2000

ECK - 619

The screen will only be provided to Major Retailers, National Retailers, and Re-marketers. This will not be available to ISO's or small retailers.

May 2000

Req.
ID

eCheck Business Requirements

Pha

7 Logging Requirements

7.1 Transaction Logging

Transaction logging identifies what needs to be logged at the transaction level.

ECK - 623 The system will log all product options that were applied to a transaction. This includes the following:

- Authorization
- SCAN OnLine product set requested. (NOTE: SCAN OnLine already tracks this, will eFunds need to know this for pricing / reporting issues?)
- Guarantee
- Processed

Existing

ECK - 628 The system will log all ACH activity that occurs against a transaction.

Existing

ECK - 629 The system will log all Settlement activity that occurs against a transaction (redundant with above?).

Existing

7.2 System logging

Most logging requirements should be consistent with current system logging being used by the various systems. The following are logging requirements specific to eCheck.

ECK - 632 The system will log the following whenever the member closes a batch:

- Date and Time
- Member
- Location if applicable
- Number and Dollar amount approved
- Number and Dollar amount declined
- Terminal or ECR if applicable
- Clerk ID (Store and Forward)

Existing

ECK - 640 The system will keep logs available on-line for a period of 30 days. After that they can be archived to other media (tape, CDR, etc.)

Jan 2000

eCheck Business Requirements

Req.
ID

May 2000

ECK - 641 The system will provide a User Interface that allows users to view and query the log files easily.

ECK - 642 The system will support queries by the following fields:

- Date
- Member and optionally Location

8 Environment and Compatibility Requirements

This product is being built and supported by three separate Business Units: SCAN, DEPS, and eFunds. This environment causes presents certain issues. This section describes the requirements as they apply to this environment.

ECK - 647 All new User Interfaces must be accessible from any facility. This specifically includes the Call Center Applications, the Installation Environment, the OnLine Admin System and Checks Inquiry etc. May 2000

ECK - 648 All User Interfaces must be compatible with the following environments:

- X-Terminals (SCAN Call Center)
- Microsoft Windows environment

May 2000

ECK - 651 The system will have to support the following protocols for File Transmissions (NOTE: SCAN already supports these):

- 3770 / SNA
- 3780 / Bisyne
- IP
- Async

Existing

ECK - 656 The system will have to support following incoming protocols for OnLine Transactions (NOTE SCAN OnLine already supports these):

- IP
- SNA LU-0 & LU-6.2
- X.25

Jan 2000

ECK - 660 The system will insure that transactions are re-routed appropriately during down situations.

9 Capacity Requirements

Req.
ID

eCheck Business Requirements

Pha

The five-year projections for transaction volume in thousands are:

Product	1999	2000	2001	2002	2003
Processing	1330	17795	92565	237238	383863
Processing & Auth.	2183	12698	43541	91616	167041
Processing, Auth. & Guaranty	1400	7109	18684	38780	74469
Total	4913	37601	154791	367634	625373
Of these approx. 75% of the processing product would be ASCII File based					

We can assume that 1% of the Auth. and Auth. & Guaranty numbers will be given a referral card. Of those about 40% will result in a Consumer Referral Call.

10 Availability and Response Time Requirements

ECK - 703	The Point of Sale System needs to be available 24 hours by 7 day at 99.9% availability.	May 1999
ECK - 704	Response time requirements are different for dial-up vs. direct lines. They are: - Dial-Up: average of 15 seconds, no longer than 20 seconds. - Direct POS: average of 5 seconds, no longer than 7 seconds.	Jan 2000
	Response time requirements are calculated from the moment the sales associate "sends" the request to the moment the sales associate gets a response.	
ECK - 708	The system will have four hours to create a file for an ODFI.	Existing

11 Installation Requirements

There are two levels of installations. The first is the full installation for such things as billing, reporting, support etc. This is done at the Major and National Retailer level, the Re-marketer level and the ISO level. The second level of installation is for the purposes of settlement only. This is done at the end user level. Which means that each retailer that is a re-marketer install will have an installation cycle for settlement for the eCheck product.

Req.
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eCheck Business Requirements

Pha

11.1 Global Installation Requirements

- | | | |
|-----------|---|--|
| ECK - 712 | There needs to be a single person responsible for the coordination of an installation. This person is responsible for all components of the install for all business units and products involved. | |
| ECK - 713 | There needs to be an audible check list or project plan for each installation. | |
| ECK - 714 | Each installation needs to have a system of checks and balances. This would involve the review of the check list or project plan and related documentation to insure everything is in place and ready to go prior to activating the member for production. | |
| ECK - 715 | The system must have adequate security to prevent unauthorized users from installing or de-installing a member. | |
| ECK - 716 | Member Contact and Profile information needs to be gathered and entered into the Member / Merchant Systems at eFunds and SCAN. That information is as follows (NOTE: this is not product specific information that is under the product installation sections): <ul style="list-style-type: none"> • Company Name & Address • Contact Name & Phone • Products Used • Billing address & contacts • Customer Type (Major/National/Re-marketer/ISO) | |
| ECK - 722 | There needs to be a change management system for both installations and support that track any changes in configuration. | |
| ECK - 723 | There needs to be a published installation queue that shows each full installation and it's current status, including pending ones. | |
| ECK - 724 | We need to be able to certify any new installation at P.O.S. prior to going into production. | |

11.2 Installation User Interface

- | | | |
|-----------|--|----------|
| ECK - 726 | The system will provide user interfaces that allow authorized users within Deluxe and eFunds to perform installations. | May 2000 |
| ECK - 727 | The system must allow authorized installation analysts from any Deluxe or eFunds site to access installation screens. | May 2000 |
| ECK - 728 | The user interface will provide authorized users with the capability to place a member into production. | May 2000 |
| ECK - 729 | The user interface will provide authorized users with the capability to move a member out of production. | May 2000 |

eCheck Business Requirements

Req.
ID

11.3 Full Installations

11.3.1 Overview

ECK - 732 A full installation must be done for every Major Retailer, National Retailer, Re-marketer, or ISO that is using the eCheck Product. The actual installation needs will vary depending on the services provided Processing, Authorization, and/or Guarantee.

11.3.2 Processing

ECK - 734 Every member that is using eCheck must go through an install for processing.

ECK - 735 Member information needed for this product is:

- Hold Period
- "Smoothing" on/off
- Number of resubmission's
- Maximum Check Amount to process
- Service Fee information (see service fee section)
- Report Configuration (see reporting section)
- Contribute directly to SCAN - y/n
- ODFI

ECK - 744 For each end point retailer that is using processing the following information is needed:

- Fed Tax ID
- Financial Institution Information (Name, Address, Phone, Contact)
- Depository Account Information (ABA, Account Number)
- - Debit Account
- - Credit Account
- Service Fee information (see service fee section)

ECK - 751 If the member is having eFunds contribute to the SCAN File, SCAN needs to perform a SCAN Host Install for an additional member in the eFunds Prepro file.

eCheck Business Requirements

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11.3.3 Authorization

ECK - 753	Every Member that is using the Authorization Product needs to go through a SCAN OnLine Installation Process.	May 2000
ECK - 754	Member information needed for this product is: <ul style="list-style-type: none"> • Terminal Numbers • Risk Parameters (SCAN OnLine) • POS Message Text (Custom for Majors & Nationals) 	May 2000
ECK - 758	If a Proprietary ID File is being provided by the member needs to be integrated into the system.	May 2000

11.4 Re-marketer & ISO Installation Interface

ECK - 760	The product will provide re-marketer installation interface that allows a re-marketer too electronically submit one of their retailers for settlement installation.	May 2000
ECK - 761	The Re-marketer Installation Interface will insure that all of the required fields needed for settlement are filled in. These fields are: <ul style="list-style-type: none"> • Depository Account Number • Financial Institution • Retailers Legal Name and address • Retailers Name, as it is to appear on the consumers checking account statement • Name and Phone number of contacts at the Retailer • Retailers Federal Tax ID • Terminal ID(s) • Type of Business • Credit Information (ISO's only) 	May 2000
ECK - 771	For Re-marketers, once the installation form has been submitted the system will place that retailer into production within five business days of submission.	May 2000
ECK - 772	For ISO's, once the installation form has been submitted the system will place the installation in a pending status for review. The actual review process will be determined procedurally.	May 2000
ECK - 773	For ISO's, once the installation has been approved by the appropriate eFunds/SCAN staff it will be activated	May 2000

Req.
ID**eCheck Business Requirements**

Pha

ECK - 774 The interface will provide the re-marketer with the ability to inquire by their retailers and get their current installation/production status. May 2000

ECK - 775 All systems must be synchronized prior to going onto production. May 2000

ECK - 776 The system will support periodic review of ISO's with a quarterly review of the financials for ISO's. May 2000

12 Support Requirements

ECK - 778 There needs to be a single phone number for support regardless of where the actual support is going to occur at (eFunds, DEPS, SCAN)

ECK - 779 The phone system needs to be able to route the member asking for support to the appropriate place based on a simple menu.

ECK - 780 Technical support for down system needs to be available 24 by 7

ECK - 781 Member support for basic knowledge questions (i.e. how do I read my report, why doesn't my account balance etc.) will be available 6AM to 10PM PST M-F.

ECK - 782 There needs to be an escalation list that handles all business units.

12.1 POS Terminal & Support Requirements

ECK - 784 A specification for POS Terminals must be created and maintained.

ECK - 785 A certification procedure needs to be created and maintained for POS Terminals.

ECK - 786 A service agreement template needs to be created and maintained. This service agreement is entered into between the Member and the third party maintaining the POS Terminals.

ECK - 787 If a POS Terminal goes down the product will provide the member with the ability to manually check the item against the SCAN Negative File.

ECK - 788 The Member is responsible for providing all supplies needed for their POS Terminals, unless otherwise agreed upon in a service agreement.

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eCheck Business Requirements

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13 Risk Assessment Requirements

Because we are dealing with small businesses with this product a fairly robust risk assessment and fraud detection environment needs to be produced that determines if the Member is conducting potential fraudulent activities. This section describes that component.

ECK - 791 The Re-marketer is responsible for all retailers they sign up.

ECK - 792 The system will provide a user interface that will allow a Risk Manager to extend the hold period of an end-point retailer in order to conduct an investigation.

13.1 Variance Report

ECK - 794 The system will provide a variance report by member that provides the number and dollar amount of transactions by type.

ECK - 795 Each member will have variance thresholds that can be set at the Member, Retailer, Store, or Terminal level.

ECK - 796 Only volumes or amounts that exceed the thresholds will be included in the report.

ECK - 797 The variance report variance will report exceptions against two calculated norms; same month last year and prior month.

Example: A Members' report for January 1999 would be calculated against the totals of January 1998 and December of 1998.

13.2 Fraud Detection User Interface

ECK - 800 The system will provide a user interface that will allow authorized users to look at the variance data in a near real time environment. Near real time is defined as off by no more than four hours.

ECK - 801 The user will have the ability to enter date; time ranges and review the variance exceptions.

ECK - 802 The user will have the ability to modify the variance percentage and recalculate the variance appropriately.

ECK - 803 The user will have the ability to perform the calculations at any level from member to terminal level.

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eCheck Business Requirements

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14 Billing / Invoicing Requirements

ECK - 805

The system will support monthly, weekly, and daily billing.

Sept 1999

14.1 Daily and Weekly Billing

ECK - 807

The system will only do weekly and daily billing for transactions fees.

Sept 1999

ECK - 808

The system will only do weekly and daily billing via the ACH Network.

ECK - 809

Daily and weekly billing will be shown on the members Settlement Reports.

14.2 Invoices

ECK - 811

Invoices will be distributed monthly to the Members.

Sept 1999

ECK - 812

If the amount has been billed via ACH then the invoice will show that amount and the fact that it was paid. So transaction fees would be shown as a \$0.00 amount due.

ECK - 813

All incidentals will be on the monthly invoice. This would be things such as custom reports, decals, referral cards etc.

ECK - 814

All monthly billing is net 30.

ECK - 815

Invoices must support EDI.

14.3 Transaction Fee calculation

ECK - 817

Transaction fees need to be able to be calculated in one of two methods or a combination of the two.

ECK - 818

Method one is a flat transaction fee per transaction.

Existing

ECK - 819

Method two is a percentage of the principle amount of the transaction.

Existing

eCheck Business Requirements

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ID

ECK - 820	The system will determine the fee as follows:	Sept 1999
ECK - 821	Calculate the transaction fee.	Sept 1999
ECK - 822	Determine if the transaction was guaranteed. If so calculate the guarantee fee which is a percentage of the principle.	Sept 1999
ECK - 823	Add the transaction fee and the guarantee fee together to get the full fee.	Sept 1999
ECK - 824	If the full fee is \$0.00 then use the default transaction fee.	Sept 1999

14.3.1 IVR Billing

ECK - 826	IVR billing is only for voluntary use of the IVR.
ECK - 827	IVR billing will be done via the SCAN Billing System.
ECK - 828	The IVR system needs two prices, one for a fully automated call and a second, higher price, for operator assisted calls.

15 Member Requirements

ECK - 830	The member must obtain written permission from the consumer to present their check electronically. This is normally done via the Authorization Form.
ECK - 831	The retailer must stamp every electronically processed check as "VOID - Electronically Processed"
ECK - 832	The retailer must return the check to the consumer.
ECK - 833	The member must abide by the SCAN Rules of Participation.
ECK - 834	The retailer must keep the Authorization Form for at least two years.
ECK - 835	The retailer must be able to retrieve an Authorization Form with in 24 hours of being requested to do so.

EFUNDS CORPORATION
INTERNET CHECK ACCEPTANCE

50168276-120199

**Payment Processing for
Internet Check Option**

June 1999

The intent of this proposal is to provide the details on internet check acceptance approval and processing that might serve as the basis of a partnership between EFunds Corporation and CyberSource. The contents of this proposal review the services available to provide non-secured internet electronic check acceptance capabilities to internet merchants through CyberSource. This proposal should be considered an introduction to a larger opportunity to build out a fully robust guaranteed internet check service.

Through this first phase of the proposed service partnership between CyberSource and EFunds, internet merchants would be provided with the capability to electronically accept check-based debit payments for purchases through their sites. The current eFunds-Tustin, CA electronic check acceptance payment platform will be leveraged to provide real time verification of the payments and payment processing via the ACH network. It is expected that this lower cost, nationally accepted payment vehicle will reduce cost and provide service to multiple merchant customer segments.

HIGH LEVEL PROCESS REVIEW:

1. *Merchant presents check payment option input screen to capture full MICR, Name, Address, Check Number, and Amount of purchase.*
2. *Payment information is transmitted to CyberSource for payment gateway services.*
3. *CyberSource connects to EFunds to obtain verification on the payment.*
4. *EFunds will provide verification and MICR conversion on the payment using multiple filters.*
5. *EFunds returns payment acceptance or declination notice to CyberSource who in turn passes message back to merchant's consumer screen.*
6. *Upon declination, the appropriate Fair Credit Reporting Act disclosure language will be provided to the consumer. FCRA consumer inquiries will be facilitated by the EFunds consumer call centers.*
7. *Upon approval, the merchant will indicate appropriate shipping notice.*
8. *EFunds will present the transaction for payment through the ACH network.*
9. *A pre-defined funds holding window will be determined to mitigate returns risk. Funds will be held in an EFunds custodial account until the hold window expires.*
10. *Funds are settled via ACH into either a merchant or CyberSource custodial account after the hold window expires.*
11. *Transactional level reporting will be available via an electronic bulletin board to be retrieved daily from EFunds. CyberSource will have the capability to pull reporting by merchant in order to pass returns information on to merchants to cancel shipments and reconcile settlement reporting.*
12. *CyberSource -or- each CyberSource merchant will have the ability to re-present NSF return items as many as two times for an additional cost.*
13. *Upon final non-payment of transactions, the merchant account or CyberSource custodial account will be debited for the amount of the returned item. If the merchant has shipped goods prior to return notification, the merchant then becomes liable for the amount of the item.*

Details on the support provided by EFunds through this process are documented on the following pages. All components included are currently ready for implementation and can be easily rolled-out to merchants as soon as possible.

SERVICE OVERVIEW DIAGRAM

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INTERNET CHECK ACCEPTANCE SERVICE COMPONENTS

- ❖ Payment Verification Services
- ❖ MICR Conversion Routines
- ❖ Payment Processing and ACH Origination
- ❖ Electronic Transaction Reporting

PAYMENT VERIFICATION SERVICES

Upon receipt of the MICR based internet check transaction, CyberSource will have the ability to authorize and verify the transaction against the multiple risk filters that exist at EFunds. These filters have been designed to mitigate the risk associated with the transaction and provide positive verification of the consumer association with the account number. A review of the filters and functionality is listed below.

SCAN On-line

SCAN On-line is a leading retail check verification decisioning tool that measures the likelihood of return on check transactions. SCAN On-line utilizes sophisticated neural net model routines combined with the nation's leading debit transactional data from the Deluxe DebitBureau to provide a fully robust decisioning tool for retail check verification. SCAN On-line incorporates the following decisioning criteria:

- ❖ SCAN (Shared Check Authorization Network) negative file data. SCAN is the nation's largest retail check verification service providing verification for the majority of the leading U.S. retailers.
- ❖ SCAN On-line Positive File: SCAN On-line tracks and stores the positive transaction data that runs through the model to assist in positive verification.
- ❖ Deluxe DebitBureau Data: SCAN utilizes MICR level information from the Deluxe DebitBureau database in order to assess the check ordering cycles of the consumer. The velocity of check ordering in conjunction with the check number sequence the consumer last ordered is beneficial in authenticating the transaction.
- ❖ Velocity Measurement: SCAN On-line tracks the activity level on the account to identify out-of-pattern activity or excessive activity based on the modeling routines built into the decisioning engine.
- ❖ SCAN On-line also incorporates the ChexSystems database reported to by over 85% of the nation's banks. The ChexSystems file is a negative database of accounts that have been closed for cause by the financial institution.
- ❖ SCAN/ChexSystems Lost or Stolen Data: SCAN On-line also incorporates the use of data reported by banks on behalf of their customers that indicates accounts that have had checks stolen from the consumer or checks that the consumer has misplaced.
- ❖ VIP Files: SCAN On-line allows for the establishment of VIP files for preferred customer special handling based on the request of the retailer.

DebitBureau MICR/Consumer Authentication

- ❖ A risk filter has been designed that utilizes the Deluxe DebitBureau to authenticate the association/ownership between the MICR presented for payment and the consumer data presented to accompany the payment.
- ❖ The robust MICR related data in the DebitBureau is matched against Name, Address, and ID fields to authenticate the presence of relationship between the payment and the consumer.

Bank Contributed Data

- ❖ The account number associated with the internet check presented for payment will be screened against the Primary Payment Systems (PPS) account number and status files. PPS is a nation-wide database of Demand Deposit Account (DDA) numbers and daily status. The PPS database is contributed to by the nation's largest banks and represents over 80% of all the DDA account numbers in the United States.
- ❖ Account level data will provide positive verification of presence of account as well as special status on accounts. The status indicators will allow for measurement on the likelihood of returns on the account. The status indicator will also pinpoint accounts that do not allow transactional data such as "post no debits" accounts. Likelihood of NSF is also provided by status indicators on the accounts.

EFunds Historical File

- ❖ All transactional data from electronic checks converted through EFunds are stored and used for both positive and negative verification on subsequent transactions.
- ❖ Past returns and MICR rejects are stored and taken into consideration when processing new transaction against the accounts.

MICR CONVERSION ROUTINES

EFunds has developed Processes that allow for the maximization of the conversion from MICR to ACH format. This process is key to the success of electronic check acceptance whether it be at the point-of-sale or via the internet as proposed in this document. Currently EFunds has less than a 1% reject rate of MICR conversion errors. In recent point-of-sale electronic check NACHA pilots, EFunds has consistently outperformed other service providers.

The science of MICR conversion is complex and requires expertise on thousands of bank specific MICR routines. By having EFunds conversion expertise, merchants are insured a minimal number of formatting error returns. The model that has been developed by EFunds also allows for a learning engine so that the model

continually becomes more robust further reducing the opportunity for items to be rejected from the ACH network.

This MICR conversion service insures that CyberSource will provide its merchants with the industry's leading conversion expertise.

PAYMENT PROCESSING AND ACH ORIGATION

For all approved internet check transactions, EFunds will initiate a debit ACH transaction to the consumer's checking account. The payment will be settled via the ACH network to an EFunds custodial account. The funds will be held in the custodial account for a pre-determined amount of time that will act as the holding window to allow for the maximum number of returns to be received prior to the funds settling to the merchant or CyberSource account.

RETURNS MANAGEMENT

If internet check items are returned from the ACH system for Non Sufficient Funds (NSF), the merchant may opt for re-presentation of the item as many as two times. Re-presentation of the item will allow for the potential collection of funds. Current re-presentation programs in traditional point-of-sale processes are effectively recovering funds at outstanding rates in excess of 70% in the first cycle of re-presentation.

If the merchant opts not to re-present items and an item is returned uncollectable, the merchant assumes liability for the amount of the item. A debit will be made to the merchant or CyberSource custodial account for the amount of the item. This is also the case for items that have been unsuccessfully re-presented.

MERCHANT ELECTRONIC TRANSACTION REPORTING

Daily reporting will be made available to CyberSource that will provide detailed transactional reporting by merchant. The reporting will be available through an electronic bulletin board system. The transaction record will include:

Transaction Date	Custom Field (Merchant Transaction Code)
Transaction Time	EFunds Transaction Code
Transaction Amount	Return Code Information (Reason for Return)
Check Number	Pre-Presentation Information
Account Number	

Daily reporting will allow merchants to reconcile settlement funds as well as shipment reports. The custom field can be used to indicate merchant specific tracking mechanism to add ease to reconciliation.

Reporting is also available weekly and monthly in both electronic, fax, and paper format upon request.

MERCHANT SCREEN COMPONENTS GUIDELINES AND RECOMMENDATION

EFunds will provide CyberSource with a set of standard guidelines and suggestions for merchant internet check acceptance:

- ❖ Input Screens (suggested MICR capture formats and JAVA applet)
- ❖ Disclosure Screens
- ❖ Regulatory Framework Requirements
- ❖ ACH Timing Correspondence with Shipment Direction

As we build out our partnership, EFunds will make its staff available to CyberSource and its clients to assist in merchant set up and CyberSource service launch campaigns to insure that merchants needs are met and process development is successful.

TECHNICAL REQUIREMENTS AND SUPPORT

CyberSource can use current EFunds electronic check acceptance technical specifications. These specs assume the imulation of a point-of-sale terminal. Advanced specs are currently being developed that will allow for more flexible connectivity and advanced service options. It is suggested that as the specs are built out at CyberSource that consideration be given to the advanced specs to allow for migration to the new processes when they become available in the first quarter 2000. This migration plan will allow for a more flexible service offering to CyberSource's clients with additional services and features.

Sample specifications have been made available at an earlier date.

CONNECTIVITY OPTIONS

The current standard connection to EFunds is via a X.25 CompuServe cloud. This option is available as well as a direct leased line connection for the CyberSource application. The direct line connection may add ease to the technical build requirements for CyberSource. Either option is available. An EFunds network specialist will be made available to CyberSource to assist in line selection, ordering, and access to Deluxe Corporation preferred rates.

SERVICE FEES

The intent of the pricing design for the internet check acceptance functionality that EFunds brings to CyberSource is to allow for a cost effective payment option that can be initiated from a large pool of consumers at a cost that is less than current credit card discount rates. The following fee schedule assumes mark up by CyberSource to its merchants to allow for revenue gain for CyberSource.

Transactional Discount Rate
Minimum Fee per Transaction
Re-presentment Fee per Transaction

CyberSource Cancellation Fee
Allows for recovery of administrative cost of set up at EFunds
♦ Fee does not apply for individual merchant cancellation

Custom Reporting Format or Delivery
♦ If a merchant requires custom reporting features or delivery of reporting in a format other than electronically via CyberSource a fee will be assessed based on the complexity of the set up request

IMPLEMENTATION

Once the proposal is accepted by CyberSource, EFunds will prepare a service agreement and assign a support team to assist in development and implementation. We will set an implementation schedule to meet the needs of CyberSource and assist CyberSource in compiling any supporting materials needed for launch to your merchants.

All elements in this proposal are currently available and ready to implement. CyberSource's development calendar should dictate our development schedule.

NEXT STEPS

It is eFunds' hope that this proposal will allow our two companies to establish a partnership that can expand and bring additional services to internet merchants to allow for flexibility and ease in debit payment acceptance.

New Services Currently in Development Include:

- ❖ Check Guarantee
- ❖ Bank Sponsored Check Guarantee
- ❖ Authorization Only Transaction

CLAIMS

1. An electronic check payment system for financial transactions comprising:
a point of sale terminal including an input device for receiving magnetic ink
5 character recognition (MICR) characters; and
an electronic device connected to the point of sale terminal, the electronic device
including software for converting the MICR characters into an automated clearinghouse
(ACH) format specified by each financial institution participating in the ACH.
- 10 2. A method of providing an electronic check payment to a commerce entity,
the method comprising the acts of:
providing a point of sale terminal capable of receiving magnetic ink character
recognition (MICR) characters and an amount of payment;
providing an electronic device;
15 entering the MICR characters into the point of sale terminal;
entering the amount of payment into the point of sale terminal;
converting the MICR characters into an automated clearinghouse (ACH) format;
and
presenting payment to the business.

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ABSTRACT

An electronic check payment system and method for financial transactions. The system includes a point of sale terminal having an input device for receiving magnetic ink character recognition (MICR) characters. The system further includes an electronic device
5 connected to the point of sale terminal. The electronic device includes software for converting the MICR characters into an automated clearinghouse (ACH) format specified by each financial institution participating in the ACH.

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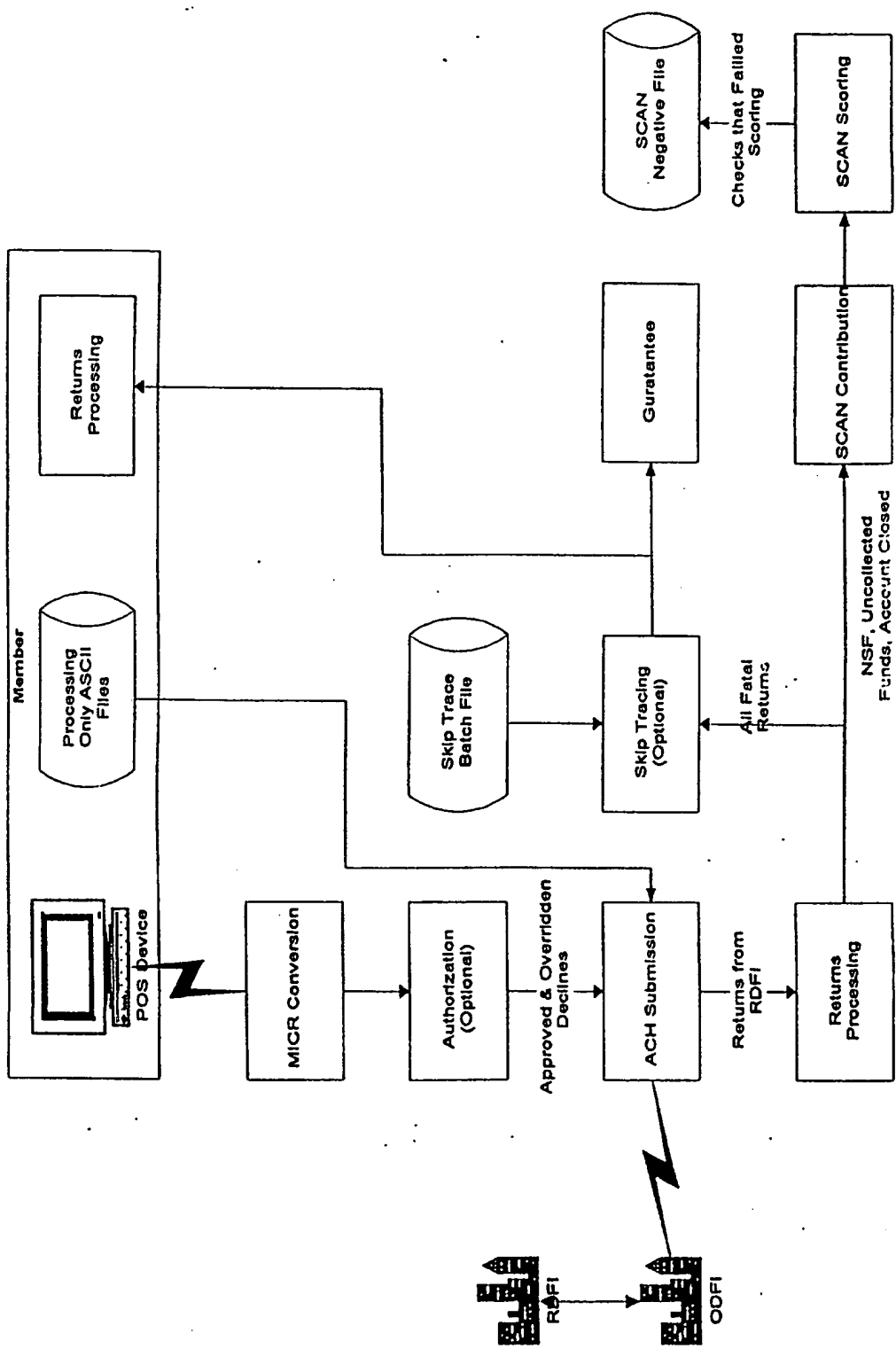


Fig. 1

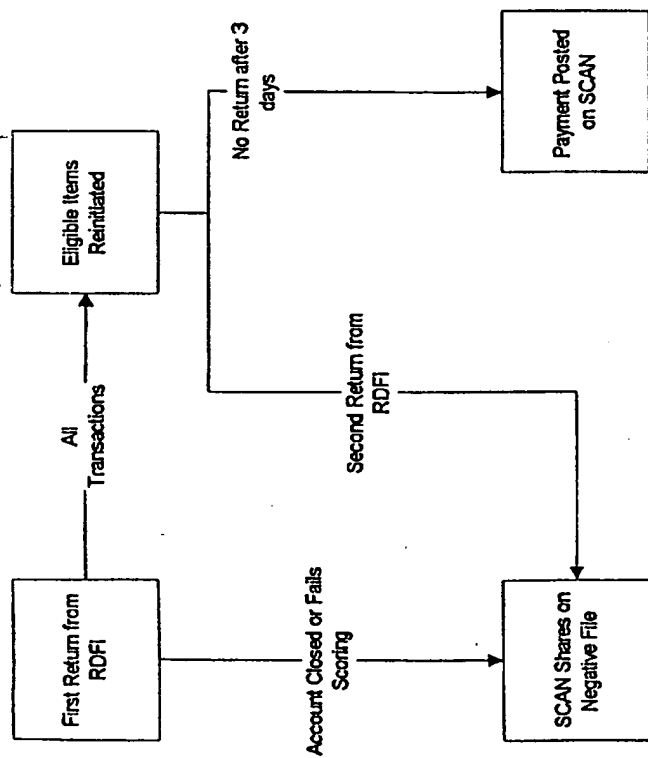


Fig. 2